ARBOC MOBILITY

SPIRIT OF MOBILITY

SERVICE and PARTS MANUAL

ARBOC MOBILITY

SERVICE OPERATIONS

Welcome to ARBOC Mobility, LLC. Our Spirit of Mobility bus features premium technology for safety, reliability and ease of operation. We realize that as a Service or Parts professional, you represent your dealership and ultimately, our product. Your understanding of the parts and procedures to maintain our Spirit of Mobility bus is vital to your customer's satisfaction. We hope that you will find this manual to be an informative and useful reference tool.

Our Spirit of Mobility bus is built on the GM 3500/4500 chassis and includes premium components for the most reliable and comfortable travel experience. Because most functions and features are unchanged, the GM service manual should be reviewed in conjunction with this guide for location, proper operation and service of these features. ***Reference to the GM Service Manual is REQUIRED for specific information on safety practices, cautions and important information such as torque specifications.***

The information presented in this manual is correct at the time of printing. With our program of ongoing improvement, policies and procedures regarding Parts and Service presented may change or be modified. ARBOC Mobility, LLC reserves the right to make changes without notice.

We value your input. Please contact ARBOC Mobility, LLC Service Operations with any questions or suggestions at 1-866-953-5555.

OVERVIEW

This manual is organized by group numbers. This format allows for easy location of ARBOC Mobility parts and service operations by their main group. Subgroups will further categorize items as our efforts continue.

There are eleven (11) groups:

0. **Vehicle:** Labels, Decals, Manuals
1. **Body:** Exterior, Interior, Windows
2. **Powertrain:** Engine and Driveline Related
3. **Frame:** Bumpers, Tow Hooks
4. **Suspension:** Front and Rear Suspension, Air Suspension Components, Compressor
5. **Exhaust:** Pipes. Mufflers, Clamps, Hangers
6. **Electrical:** Wiring, Switches, Relays
7. **Heat:** Components, Hoses, Valves
8. **Air Conditioning:** A/C Components
9. **Ramps:** Power, Manual
10. **Options:** Safety kits

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PARTS **SERVICE**

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VEHICLE

NO SE PERMITE ESTAR
ENFRENTE DE LA LÍNEA
CUANDO EL VEHICULO
ESTÁ EN MARCHA
STANDING FORWARD OF
LINE IS NOT PERMITTED
WHILE VEHICLE IS IN MOTION

SYSTEM 00.00 VEHICLE

00.00-01 LABELS

ITEM #	PART #	DESCRIPTION	TORQUE LB-FT
	1183763	LABEL, EMERGENCY RELEASE	
	1183764	LABEL, KNEELING 6.000 X 2.000	
	1183854	LABEL, EMERGENCY RELEASE PULL	
	1186011	LABEL, PATENTS PENDING SOM	
	1169637	LABEL, HANDICAP SYMBOL 4 X	
	1199921	LABEL, AMSOIL SYNTHETIC	
	1201035	LABEL, WARNING SERVICE VEHICLE	
	1201039	LABEL, OIL RESERVOIR AMSOIL	
	1183945	LABEL, OPEN 2.5" X 1" RED	
	1183946	LABEL, CLOSE 2.5" X 1" GREEN	
	1183387	LABEL, TO OPERATE RAMP INTERLOCK	
	1183388	LABEL, TO OPERATE RAMP 4"	
	1169642	LABEL, FOR FAST IDLE 4" X 1 1/4"	
	1183389	LABEL, TO STOW RAMP 5.5" X 1.25"	
	1183387	LABEL, TO OPERATE RAM INTERLOCK 4" X 1.25 '	
	1176058	LABEL, PRIORITY SEATING FOR PERSONS WITH DISABILITIES	
	1183762	LABEL, SEATS ARE NOT INTENDED FOR SEATBELT	
	1169636	LABEL, METAL STANDING FORWARD WHT LINE 13"X4-1/4"	
	378428	LABEL, UNLEADED FUEL ONLY	
	378432	LABEL, DIESEL FUEL ONLY	

00.00-02 OWNERS MANUALS

ITEM #	PART #	DESCRIPTION	TORQUE LB-FT
	1200982	HEATER, 65BTU GAS SYSTEM GM SERVICE MANUAL	

SYSTEM 00.00 VEHICLE

00.00-03 DECALS

ITEM #	PART #	DESCRIPTION	TORQUE LB-FT
	1182292	LOGO,SPIRIT OF MOBILITY BY ARBOC 9.1 X 37 BLK/GRY/RED/YE	
	1182293	LOGO,SPIRIT OF MOBILITY BY ARBOC 5.4X22.3 BLK/GRY/RED/YE	
	1182294	LOGO,SPIRIT OF MOBILITY BY ARBOC .6163 X 6"BLK/GRY/RED/Y	

BODY

SYSTEM 01.00 BODY

01.00-01 EXTERIOR

ITEM #	PART #	DESCRIPTION	TORQUE LB-FT
		01.00-01.1 CAPS	
	1163764	CAP, FRONT FIBERGLASS PW	
	1186177	PILLAR, BACK ROADSIDE	
	1186178	PILLAR, BACK CURBSIDE	
	1163768	PANEL, CAP PASSENGER ENTRY	
	1186180	CAP, REAR TOP LIGHT BAR	
	1185662	PILLAR, PASSENGER SIDE-A	
	1185660	PILLAR, PASSENGER SIDE-B	
	1164315	PANEL, ROCKER ODS FIBERGLASS	
	1163769	PANEL, REAR PASSENGER ENTRY FGL	
	1163799	PANEL, DRIVER TRANSITION FGL SHELL W/O GLASS	
	1185659	TRIM, A PILLAR DRIVER SIDE-B	
		01.00-01.2 MUD FLAP	
	1200642	MUD FLAP, 19 X 18-1/4 LDPE -	
		01.00-01.3 RUNNING BOARD	
	1190926	RUNNING BOARD, ALUM - DRIVERS SIDE	
		01.00-01.4 SPARE TIRE	
	1117247	SPARE TIRE ASSY	
		01.00-01.5 WHEELS	
	1125128	WHEEL LINER. STAINLESS STEEL	
	1140341	VALVE EXTENSION 5-3/4 SS	
	1137423	VALVE EXTENSION 125DEGREE SS	
		01.00-01.6 LIGHTS	
	1169740	TAILLIGHT, 4" CLEAR ROUND LED	
	1085462	TAILLIGHT, 4" STOP/TAIL/TURN LED	
	1085463	GROMMENT, 4" ROUND FLAT LED	
	455433	LICENSE PLAT ASSY	
	1169737	LIGHT, LICENSE PLATE LED	
	1172601	LIGHT, CLEARANCE SEALED RED LED	
	1179733	SCREW, #8 X 1 SELF TAP STAINLESS STEEL	
	1172600	LIGHT, CLEARANCE SEALED RED AMBER	
	1200269	BASE, METAL DIE CAST CLEARANCE - ARMOR MARKER	
	1186292	LIGHT, CLEARANCE RED LED 1" GROMMET MNT EMERG EGRESS	
	1169747	LIGHT, 8" CLEAR OVAL LED SURFACE MOUNT STYLE	
	1169742	LIGHT, BRAKE LED RED SURFACE MOUNT STYLE	
	1200961	LIGHT, 7" AMBER LED SCHOOL BUS STYLE SIGNAL	
	1200962	LIGHT, FLASHER MODULE SCHOOL BUS STYLE	
	506953	REFLECTOR, RED ROUND 2 1/4	

	01.00-01.7 MIRROR
1169807	MIRROR, EXT EUROSTYLE DRVS REMOTE HEATED
1169808	MIRROR, EXT EUROSTYLE PASS REMOTE HEATED
1169805	MIRROR, EXT EUROSTYLEM715 DVR 4-WAY HAND ADJ NON-HEATED
1169806	MIRROR, EXT EUROSTYLEM715 PAS 4-WAY HAND ADJ NON-HEATED
1169809	MIRROR, EXT DRVS REMOTE-FLAT MAN-CONVEX BOTH HTD LED W/SWC
1169810	MIRROR, EXT PASS REMOTE-FLAT MAN-CONVEX BOTH HTD LED W/SWC
1191605	WIRE HARNESS, MIRROR TURN SIGNALS
	01.00-01.8 TRIM
1178274	TRIM, DOOR EDGE 0.15 SMOOTH LEFT REAR
1163769	PANEL, REAR PASSENGER ENTRY
1176860	MLDG, INSER 7/8" VINYL PAINTABLE MARLITE
503070	MLDG, INSERT FLAT W-1/8" OFFSET
1037710	MLD, GUTTER RAIL INSERT
446887	ROOF EDGE, NON-INSERT PWW/CURVED LEG
1042592	GUTTER SPOUT, LEFT & RIGHT POLAR WHITE
	01.00-01.9 REAR DOOR
1182675	DOOR,55X33 LAM400-EXT REAR CARGO
1051038	STRUT, GAS 10LB 14"
413104	TAPE, TACKY 3/4 X 1/8 (DOOR /LIGHT SEAL)
462866	GIMP, COVE 1/2" WHITE (DOOR SEAL)
377288	BRACKET, FLAT 2.5L X 1.44W X .660 BALL STUD
	01.00-01.10 WINDOWS
1180882	WINDOW, 12W X 30H FLAT SOLID TINT W/GARNISH
1180884	WINDOW, 17.31 X 27.06H FLAT SOLID TINT W/GARNISH
1165809	WINDOW, 17.31 X 38-5/8 RAD TINT
1168851	GARNISH, WND 17-3/4 X 38-5/8 .014 BLACK
1169687	WINDOW, 19.13 X 36-1/4 RAD FLAT SOLID TNT
1169692	GARNISH, WND 19.13 X 36-1/4 .014 BLACK
1165927	WINDOW, 20-3/8 X 36-3/8 DS RAD SLDR
1165939	GARNISH, WND 20-3/8 X 36-3/8 .014 BLACK
1165943	WINDOW, 36-3/8 X 36-3/8 RAD SLDR TNT
1165929	WINDOW, 36-3/8 X 36-3/8 DBL T-SLDR TNT
1165931	WINDOW, 36-3/8 X 36-3/8 DBL T-SLDR TNT
1168930	WINDOW, 36-3/8 X 36-3/8 RAD SOLID TNT
1167767	WINDOW, 36-3/8 X 36-3/8 RAD SOLID TNT EGRESS
1165937	WINDOW, 36-3/8 X 36-3/8 DBL T-SLDR EGRESS
1165928	WINDOW, 36-3/8 X 36-3/8 RAD SOLID TNT
1165941	GARNISH, WND 36-3/8 X 36-3/8 .014 BLACK
1165948	WINDOW, 45-3/8 X 36-3/8 RAD SOLID TNT
1165935	WINDOW, 45-3/8 X 36-3/8 DBL T-SLDR OPEN TNT
1165946	GARNISH, WND 45-3/8 X 36-3/8 .014 BLACK
1180584	WINDOW, 46.5 X 8.5 CLEAR ACRYLIC FLAT SOLID
1178829	WINDOW, 46.5 X 8.5 WHITE ACRYLIC FLAT SOLID
1165926	WINDOW, 60-3/8 X 24-3/8 RAD SOLID TNT BLACK
1165933	WINDOW, 60-3/8 X 24-3/8 RAD SOLID TNT EGRESS
1180081	WINDOW, 60-3/8 X 24-3/8 RAD SOLID TNT EGRESS
1165945	GARNISH, WND 60-3/8 X 24-3/8 .014 BLACK
1165808	WINDOW, 8 X 35-3/4 RAD TNT FLAT SOLID TRANSITION
1168849	GARNISH, WND 8 X 35-3/4 .014 BLACK
502719	SCREW, #8 X 5/8 PAN HD QUADREX (GARNISH/WINDOW FASTENER)
1061400	TAPE, PVC .250 X .625 V810 GREY #8 DENSITY (WINDOW SEAL)

		EGRESS WINDOW LIGHTS		
	1186292	LIGHT, CLEARANCE RED LED 1"		
		01.00-01.11 HATCH		
	1168888	HATCH, ROOF STANDARD SAFETY		
	1184636	HATCH, ROOF TRANSPEC WHITE		
	1200975	HATCH, ROOF W/OUTSIDE RELEASE VENT W/#16 MTG FRAME LT GRAY		
	1061400	TAPE, PVC .250"X.625" GREY #8 DENSITY		
		01.00-01.12 WHEEL WELLS		
	1200799	FLOOR ASSY, STL CENTER W/STAINLESS STEEL		
	1163809	FLOOR ASSY, STL CENTER		

SYSTEM 01.00 BODY
01.00-02 INTERIOR

ITEM #	PART #	DESCRIPTION	TORQUE LB-FT
		01.00-02.1SEATS	
		SEATS - REFER TO FREEDMAN SEATING - 7/16" BOLT	60
		SEATS - REFER TO FREEDMAN SEATING - 1/2" BOLT	60
		SEATS - REFER TO FREEDMAN SEATING - 3/8" BOLT	15
		SEATS - REFER TO FREEDMAN SEATING - DRVS SEAT	44
		SEAT BELTS - REFER TO FREEDMAN SEATING	60
		ALL FASTENERS (BOLTS.NUTS WASHERS) TO BE GRADE #8	
	1171752	US ARM, BLACK SOM	
	1172039	FOOTREST, METAL BLACK SOM	
	1171769	HEADREST, ADJUSTABLE MIB BACK	
	1171767	POCKET, MAP MESH SOM	
	1200768	GRAB RAIL, CITI SEAT	
	1171765	GRAB HANDLE, CORNER BLACK SOM	
	1171761	GRAB HANDLE, AV BLACK SOM	
	1179098	GRAB HANDLE, HIGH BACK AV BLACK SOM	
	1172042	CHAIR, PILLOW SEAT TOP	
	1191695	ARM RESTS, UPHOLSTERED RITZ	
	1171774	BACK, SEAT ABS FEATHER WEIGHT	
	1190928	SNACK TRAY, FREEDMAN SOM	
	1190927	CUP HOLDER, FREEDMAN SOM	
		01.00-02.2 ANCHOR SYS	
	1184626	ANCHOR ASSY, FLOOR Q-STRAINT	
	1184637	ANCHOR ASSY, FLOOR SURE-LOK	
	1198736	TIE DOWN SYSTEM, WHEELCHAIR L TRACK	
	1169800	TIE DOWN KIT, WHEELCHAIR L-SERIES W/D-RINGS & S-HOOKS	
	1189039	TIE DOWN KIT, WHEELCHAIR W/BELTS MANUAL W-STRAINT	
	1190539	SCREW, CAP SOCKET FLAT HEAD 6/16-18 X 1 1/2" UNC 3/16 KEY	
	1200658	SHEET STRIPS, 14 GA STL 6"X10'	
	1199940	L-TRACK, AL PRE-DRILLED 100" FL REGULAR FLOOR	
	1199862	END CAP, "L" TRACK	
	1199859	TIE DOWN KIT, W"L" TRACK RETRACT SHOULDER BELT QSTRAINT	
	1200939	TIE DOWN KIT, QSTRAINT L TRACK RETRACT SHOULDER BELT	
	1200316	TIE DOWN KIT, QSTRAINT QRT810 AT-SC	
	1200953	TIE DOWN KIT, SURE-LOCK AUTO LOCKING SOLO RETR W/S HOOKS	
	1199855	TIE DOWN KIT, SLIDE N CLICK W/RETRACT SHOULDER BELT WSTRAINT	
	1199858	TIE DOWN KIT, SLIDE N CLICK W/ SHOULDER BELT WSTRAINT	
	1198737	TIE DOWN SYSTEM, WHEELCHAIR	
	1178921	L-TRACK, AL PRE-DRILLED 100"	
	1190907	POUCH, WALL STORAGE SEAT BELT VINYL SURLOK	
	1178923	POUCH, WALL STORAGE SEAT BELT VINYL QSTRAINT	

		01.00-02.3 RACKS	
	1191886	RACK, OVERHEAD PARCEL 12' GREY DELUXE (4FT SECTIONS)	
	1191698	RACK, OVERHEAD PARCEL 12' GREY STANDARD (4FT SECTIONS)	
	1199849	PLEXIGLASS, CLEAR 3/16" X 12" X 12"	
	1199687	STORAGE RACK, WALKER/CANE 1-1/4" YELLOW	
	1183017	RACK, LUGGAGE 1-1/4" SS 48" W/DUAL FLDG SHELVES	
	480659	CARGO LINER, APPL GREY	
	1178634	RACK, LUGGAGE 1-1/4" SS 67WX26DX66 W/DUAL FLDG SHELVES	
	1199933	STORAGE RACK, WALKER/CANE WHEEL WELL 1-1/4"	
	1196671	STORAGE RACK, WALKER/CANE 1-1/4"	

		01.00-02.4 GRAB RAILS	
	1183398	PLEXIGLASS, .157 X 15 X 20 W/CUTOUT	
	1186183	PANEL, MODESTY PASS PLASTIC	
	1173868	STANCHION, DRVS OFFSET 1-1/4 SS 80" LONG LEG	
	1185535	GRAB RAIL, OVERHEAD 1-1/4 SS 78" LONG W/MOUNTING	
	1173884	GRAB RAIL, ENTRY RH 1-1/4 SS W/MOUNTING	
	1164313	BARRIER, ENTRY LH 1-1/4 SS W/GRAB RAIL	
	1182102	PADDING, STANCHION 2" OD 1-1/2"	
	1186181	PANEL, MODESTY DVRS PLASTIC	
	1199050	STANCHION, DRVS OFFSET YELLOW 1-1/4 SS 80" LONG LEG	
	1183398	PLEXIGLASS, .157 X 15 X 20 W/CUTOUT BRONZE ACRYLIC	
	1186427	GRAB RAIL, OVERHEAD 1-1/4 SS 124.75"	
	1199098	GRAB RAIL, OVERHEAD 1-1/4 SS 102" YELLOW	
	1180586	GRAB RAIL, OVERHEAD 1-1/4 SS 102"	
	1199077	GRAB RAIL, ENTRY YELLOW 1-1/4 RH W/2 OV MTG FLGS 24X24 1/4	
	1199690	GRAB RAIL, OVERHEAD YELLOW 1-1/4 SS 78"	
	1186428	GRAB RAIL, OH -1/4 SS 148.5"	
	1199100	GRAB RAIL, OVERHEAD YELLOW 1-1/4 SS 148.5"	
	1200217	GRAB HANDLE, 1" SS FLATENED W/CUSTOM FLANGES	
	1200456	HANDLE, ASSIST ENTRY 1" RH W/CUSTOM FLANGES	
	1200457	HANDLE, ASSIST ENTRY 1" LH W/CUSTOM FLANGES	
	1199689	GRAB RAIL, OVERHEAD 1-1/4 SS YELLOW 124.75"	
	1200221	GRAB HANDLE, 1" SS FLATENED W/CUSTOM FLANGES YELLOW	
	1199079	BARRIER, ENTRY YELLOW LH1-1/2	

		01.00-02.5 INTERIOR COVERINGS	
	1178262	AUTOCLOTH, PADDED 3/16 FOAM 54"PERIGON SLATE GREY	
	1176729	TRIM, BATTEN 1-1/2 X 8.25 GRANITE	
	1199486	AUTOCLOTH, PADDED 3/16 FOAM 54" VENICE NEUTRAL TAN	
	940539	MAT, RIBBED RUBBER 1/8"	
		01.00-02.6 MIRRORS	
	1176842	MIRROR, INTERIOR 6 X 9 CONVEX	
	1184792	BRACKET, MIRROR INTERIOR	
	1174356	LENS, FRESNAL 11 X 14 SOM	
	1200781	MIRROR, INTERIOR 4 X 16 CONV	
		01.00-02.7 SPEAKERS	
	406632	SPEAKER, W/GRILL 25 WATT 6OZ	
		01.00-02.8 COVERS	
	1183362	HATCH, ACCESS 10 X 18 ABS GREY W/ THUMB LATCH	

		01.00-02.9 ENTRY DOORS	
		PNEUMATIC	
	1167538	PANEL, ENTR DR 40" X 76" W/E	
	1167539	HEADER, DOOR PNEUMATIC 40" A	
	1200646	LABEL, EMERGENCY EXIT RED	
	995693	SEAL, TRIM-LOK 1/16" BLACK	
	1182035	D SEAL, EPDM .760 X .930 X25	
	1182039	SEAL, WIPER EPDM .125 X 3.00	
		ELECTRIC	
	1189090	BOM, ENTRY DOOR SEALS SOM	
	1167538	PANEL, ENTR DR 40" X 76" W/E	
	1167540	HEADER, DOOR ELECTRIC 40" AS	
	1200646	LABEL, EMERGENCY EXIT RED	
	995693	SEAL, TRIM-LOK 1/16" BLACK	
	1182035	D SEAL, EPDM .760 X .930 X25	
	1182039	SEAL, WIPER EPDM .125 X 3.00	

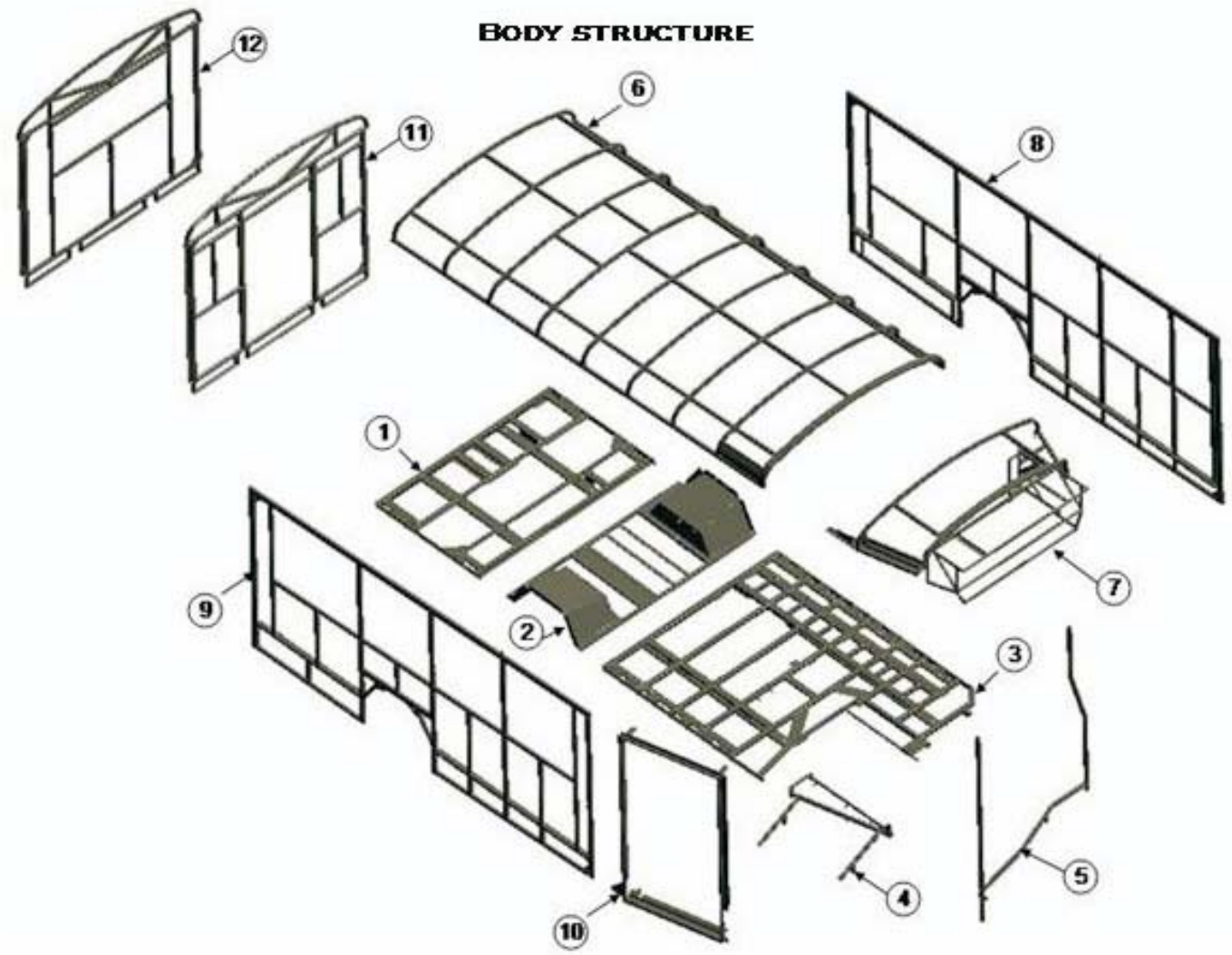
		01.00-02.10 DASH	
	1186625	DASH PANEL, ENGLISH ONLY W/RR DR	
	1186634	DASH PANEL, BILINGUAL W/RR DR	
	1186629	DASH PANEL, BILINGUAL W/O RR DR	
	1186194	BASE, CONSOLE MOUNT ABS BLACK	
	1174503	DASH PANEL, ENGLISH ONLY W/O RR DR	
	1186625	DASH PANEL, ENGLISH ONLY W/ RR DR	
	1186187	CONSOLE, DRIVERS BLACK	

		01.00-02.11 INT TRIM	
	886293	TRIM, BATTEN SNAP 3/16" PLASTIC	

		01.00-02.12 INT ABS PLASTIC	
	1186197	FRONT OH, ABS FLINT	
	1186176	PANEL, ENTR DOOR OVERHEAD ABS	
	1185658	PILLAR, DRIVER SIDE-B	
	1186504	PANEL, ABS AIR EXHAUST SMALL	
	1190411	TRIM RING, CONDENSOR 6 X 40	
	1186189	TRIM, FRONT STEP BLACK	

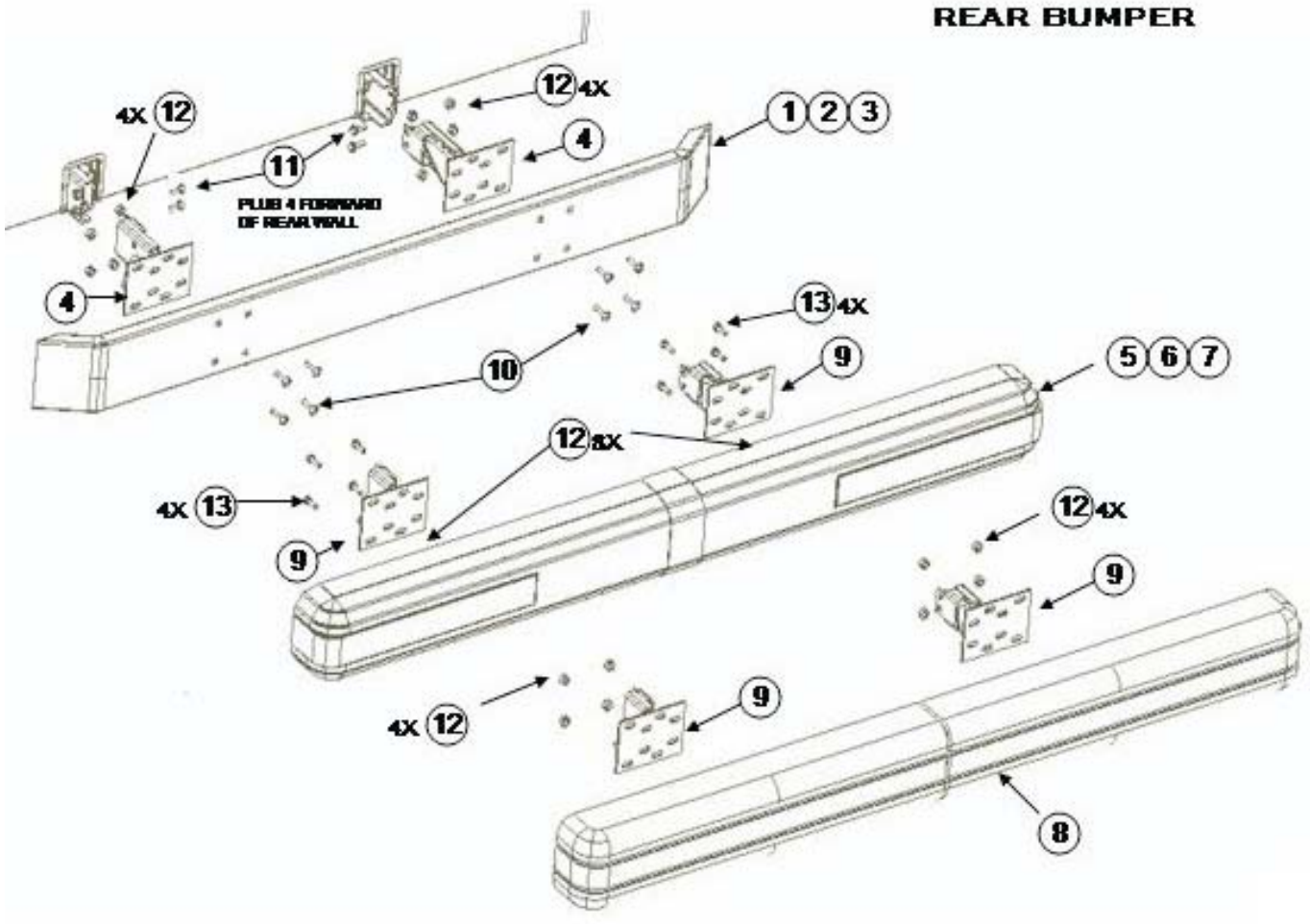
STEEL STRUCTURE

BODY STRUCTURE



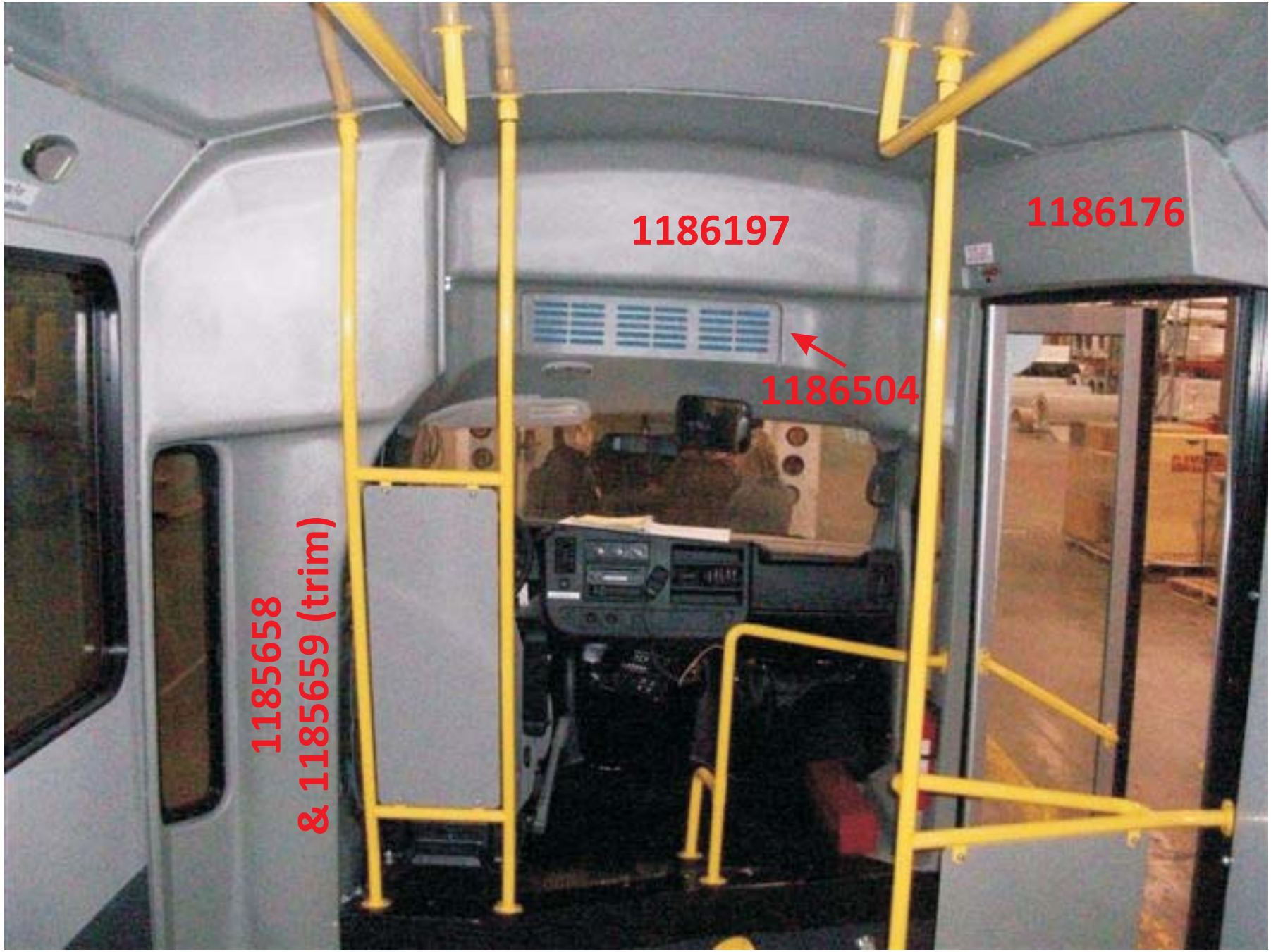
ITEM NO.	PART NAME	PART NUMBER BY WHEEL BASE 139"	159"	191"	218"
1	FLOOR ASSY, STL REAR	1170321	1170321	1170321	1170321
2	FLOOR ASSY, STL CENTER	1163809	1163809	1163809	1163809
3	FLOOR ASSY, STL FRT	1185292	1163785	1186422	1186423
4	FRAME ASSY, STL RAMP	1178560	1178560	1178560	1178560
5	CAGE WALL ASSY STL	1178392	1178392	1178392	1178392
6	ROOF ASSY, STL	1185291	1163807	1186424	1186425
7	ASSY BIRD CAGE STL FRT RF	1201917	1201917	1201917	1201917
8	FRAME, STL DRVR SIDE WALL	1185175	1181515	1187908	1187910
9	FRAME, STL CURB SIDE WALL	1185172	1181516	1187909	1187912
10	FRAME ASSY, STL DOOR	1163813	1163813	1163813	1163813
11	FRAME, STL REAR WALL W/DR	1182413	1182413	1182413	1182413
12	FRAME, STL REAR WALL W/LG	1182399	1182399	1182399	1182399

REAR BUMPER



ITEM NO.	QTY	PART NAME	PART NUMBER	TORQUE FT.LBS
1	1	REAR BMPR, STL 10 GA 8"X95" PC BLACK	1165726	
2	1	REAR BMPR, STL 10 GA 8"X95" PC WHITE	1203437	
3	1	REAR BMPR, 12 GA 8"X95" FLAT FACE	1201150	
4	2	BRACKET, REAR BUMPER EXTENDED	1202603	
5	1	REAR BMPR, 5 MPH ROMEO RIM	1164267	
6	1	REAR BMPR, 5 MPH ROMEO RIM W/ ANTI RIDE	1197190	
7	1	REAR BMPR, EN ABS 96" W/HAWKEYE SENSOR	1200148	
8	1	REAR BMPR, ENERGY ABSORBING	1189751	
9	2	BRACKET, REAR BUMPER SHORT	1202604	
10	8	CARRIAGE BOLT 1/2-13 X 1-1/4"		
11	8	BOLT, HEX FLANGE 1/2-13 X 1-1/2"		105
12	8	FLANGE NUT 1/2 -13		
13	8	BOLT, HEX FLANGE 1/2-13 X 1-1/4"		

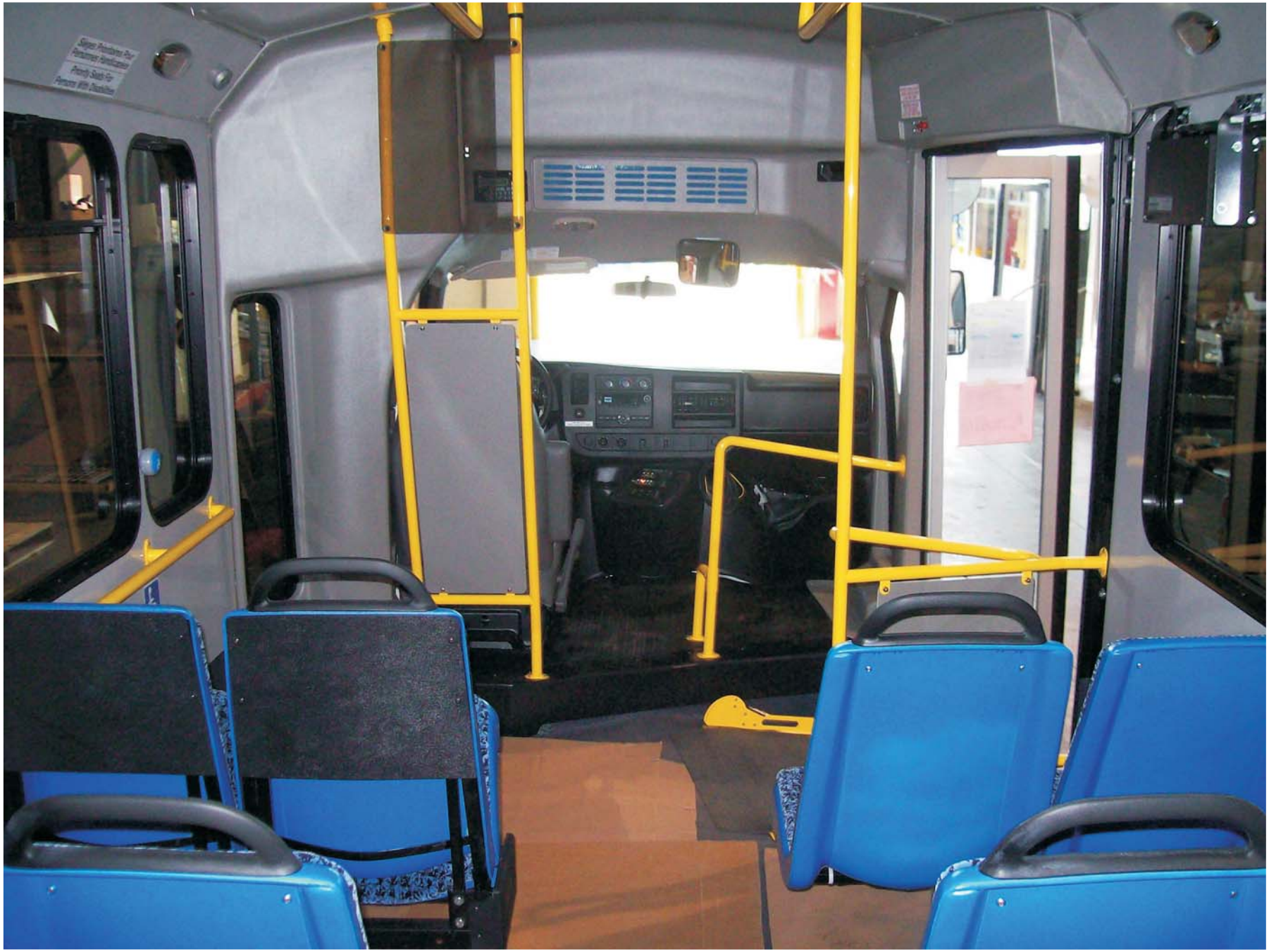
INTERIOR PANELS


1186197
1186176
1186504
1185658
& 1185659 (trim)

1185660
1185662

EMERGENCY RELEASE
PULL RED HANDLE
THEN PUSH DOOR OPEN
TANDING FO WARD OF
E LINE IS N T PERMITTED
E VEHICLE IS IN MOTION

GRAB HANDLES & STANCHIONS



5117

SEATS

REAR
DOOR

POWERTRAIN

SYSTEM 02.00 POWERTRAIN

02.00-01 DRIVELINE

ITEM #	PART #	DESCRIPTION	TORQUE LB-FT
	1189314	YOKE, TUBE NEAPCO JACKSHAFT	
	1189515	BOOT CLAMP, 60.1 TO 68.0 MM	
	1189313	MIDSHIP STUB, JACKSHAFT SOM	
	465136	END YOKE ASSY	
	491613	U-JOINT, E-40 STRETCH	
	465138	LOCKING NUT, SPLINE SHAFT	
	465135	CARRIER BEARING	
	465137	BEARING STRAP KIT, 1350 SERI	
	1189315	TUBING, 3.5" X .083 X 108"	

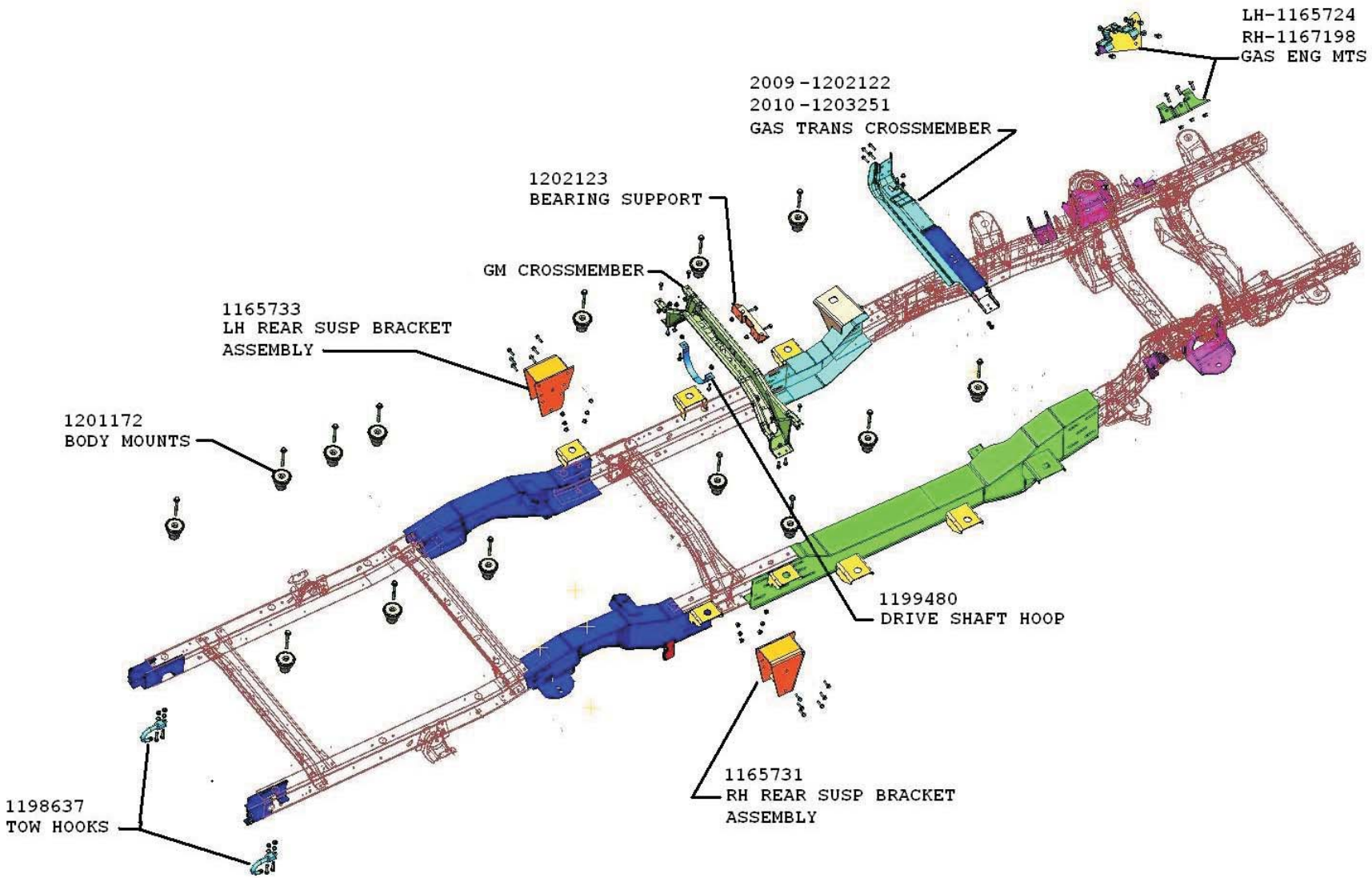
SYSTEM 02.00 POWERTRAIN

02.00-02 MOTOR MOUNTS

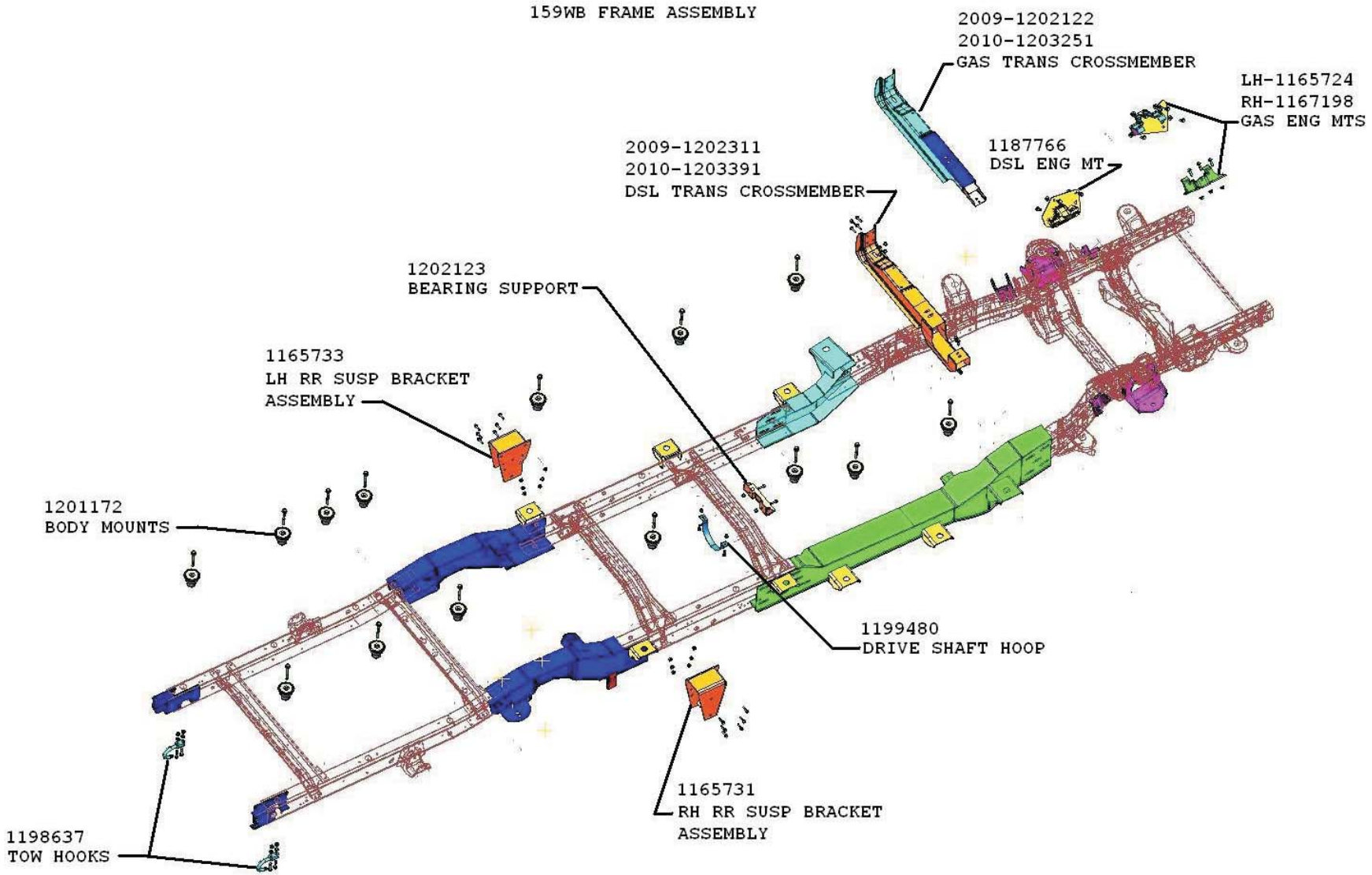
ITEM #	PART #	DESCRIPTION	TORQUE LB-FT
	1167198	BRACKET ASSY, ENGINE MOUNT RH	
	1165724	BRACKET ASSY, ENGINE MOUNT LH	
	1187766	BRACKET ASSY, ENGINE MOUNT LH DIESEL	

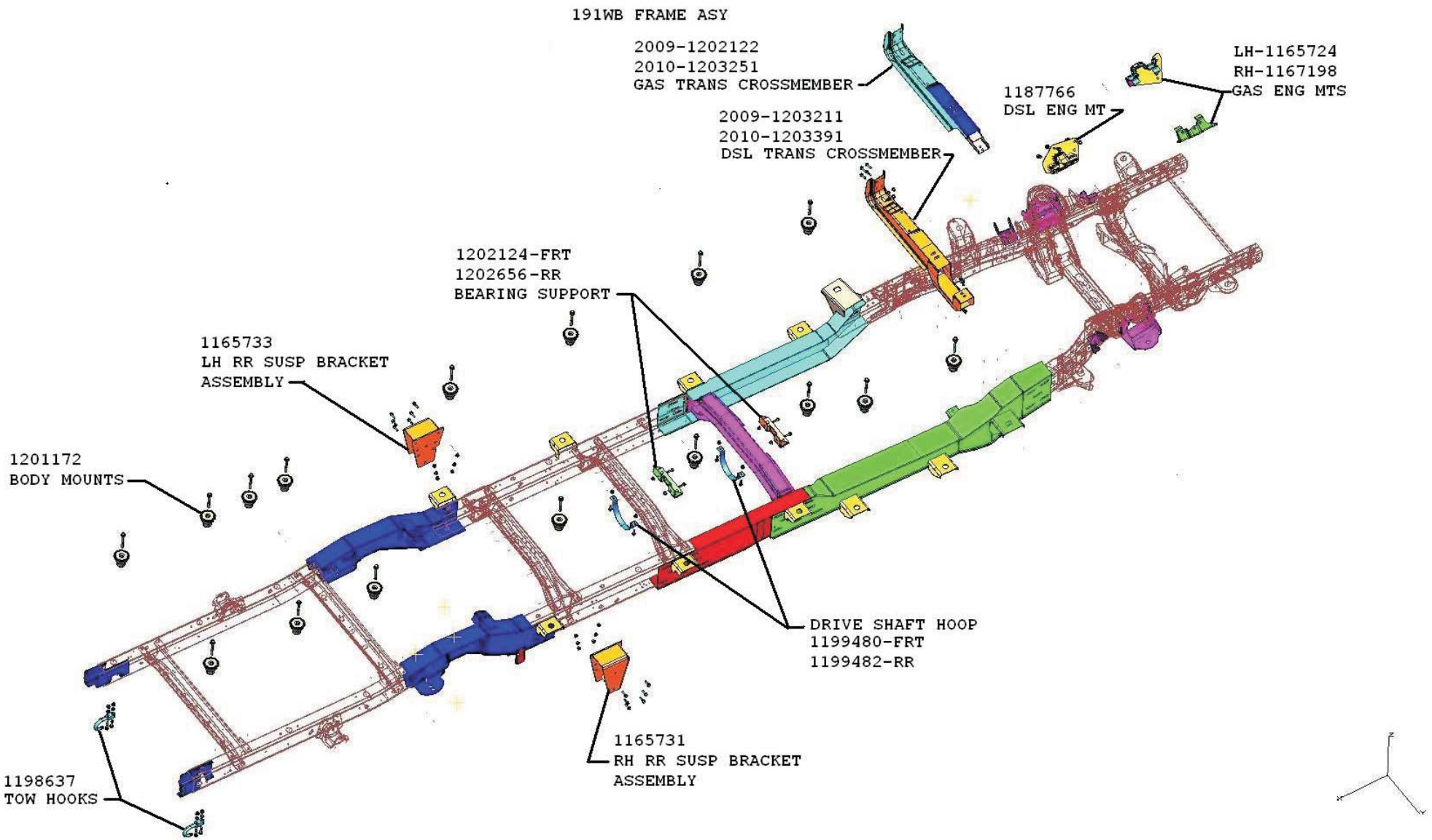
FRAME

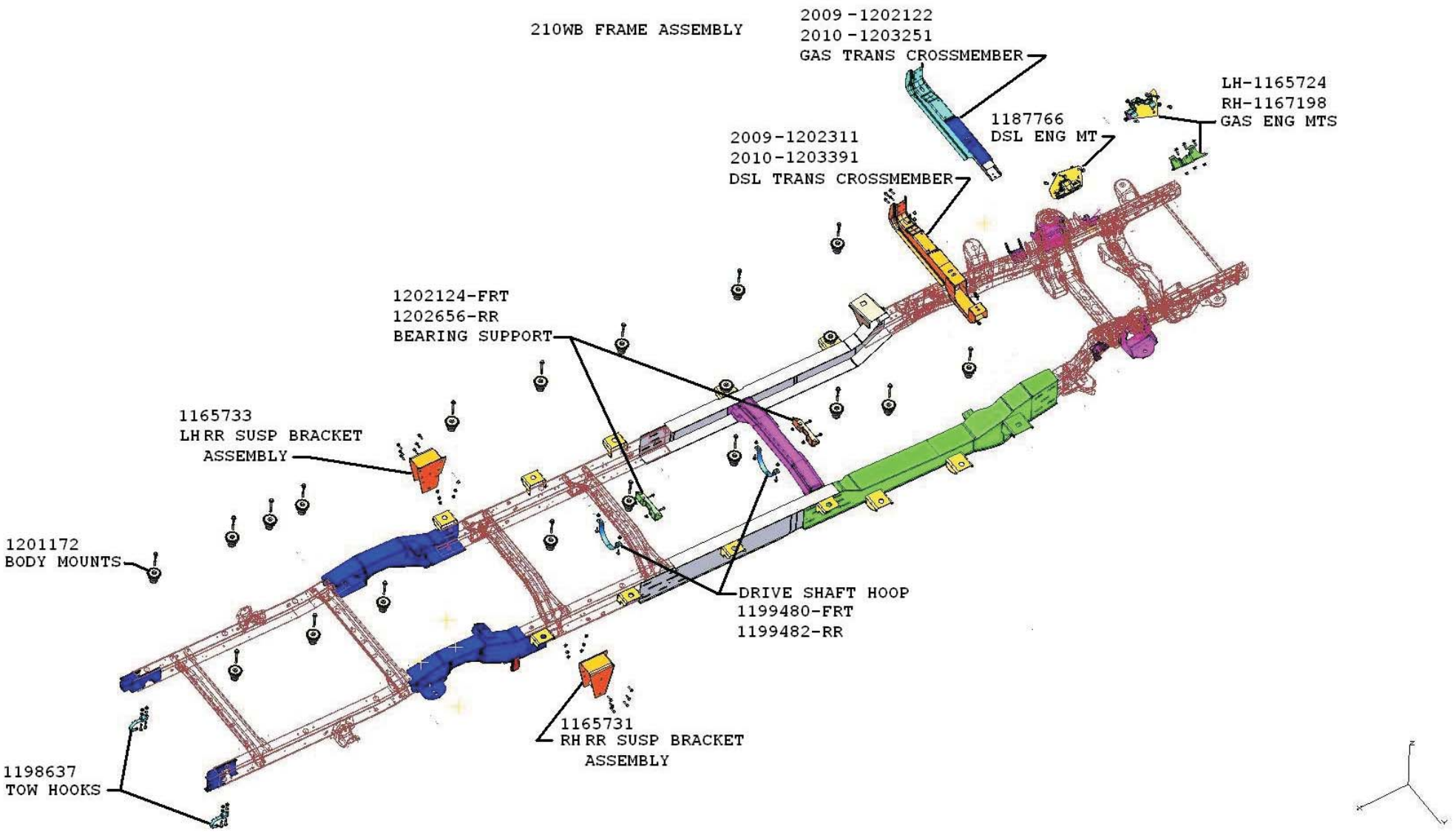
139WB FRAME ASSEMBLY



159WB FRAME ASSEMBLY




191WB FRAME ASY
2009-1202122
2010-1203251
GAS TRANS CROSSMEMBER
2009-1203211
2010-1203391
DSL TRANS CROSSMEMBER
1187766
DSL ENG MT
LH-1165724
RH-1167198
GAS ENG MTS
1202124-FRT
1202656-RR
BEARING SUPPORT
1165733
LH RR SUSP BRACKET
ASSEMBLY
1201172
BODY MOUNTS
DRIVE SHAFT HOOP
1199480-FRT
1199482-RR
1165731
RH RR SUSP BRACKET
ASSEMBLY
1198637
TOW HOOKS


210WB FRAME ASSEMBLY
2009 -1202122
2010 -1203251
GAS TRANS CROSSMEMBER
LH-1165724
RH-1167198
GAS ENG MTS
1187766
DSL ENG MT
2009-1202311
2010-1203391
DSL TRANS CROSSMEMBER
1202124-FRT
1202656-RR
BEARING SUPPORT
1165733
LH RR SUSP BRACKET
ASSEMBLY
1201172
BODY MOUNTS
DRIVE SHAFT HOOP
1199480-FRT
1199482-RR
1165731
RH RR SUSP BRACKET
ASSEMBLY
1198637
TOW HOOKS

SYSTEM 03.00 FRAME

03.00-01BUMPER

ITEM #	PART #	DESCRIPTION	TORQUE LB-FT
	1164267	BUMPER, REAR 5MPH	
	1171990	PLATE, BOLT ON ANTI-RIDE	
	1165726	BUMPER, STEEL 10GA X 95 PC BLACK	
	1189751	BUMPER, ENGERY ABSORBING	
	1200148	BUMPER, REAR 5MPH W/HAWKEYE BACK UP SENSOR	

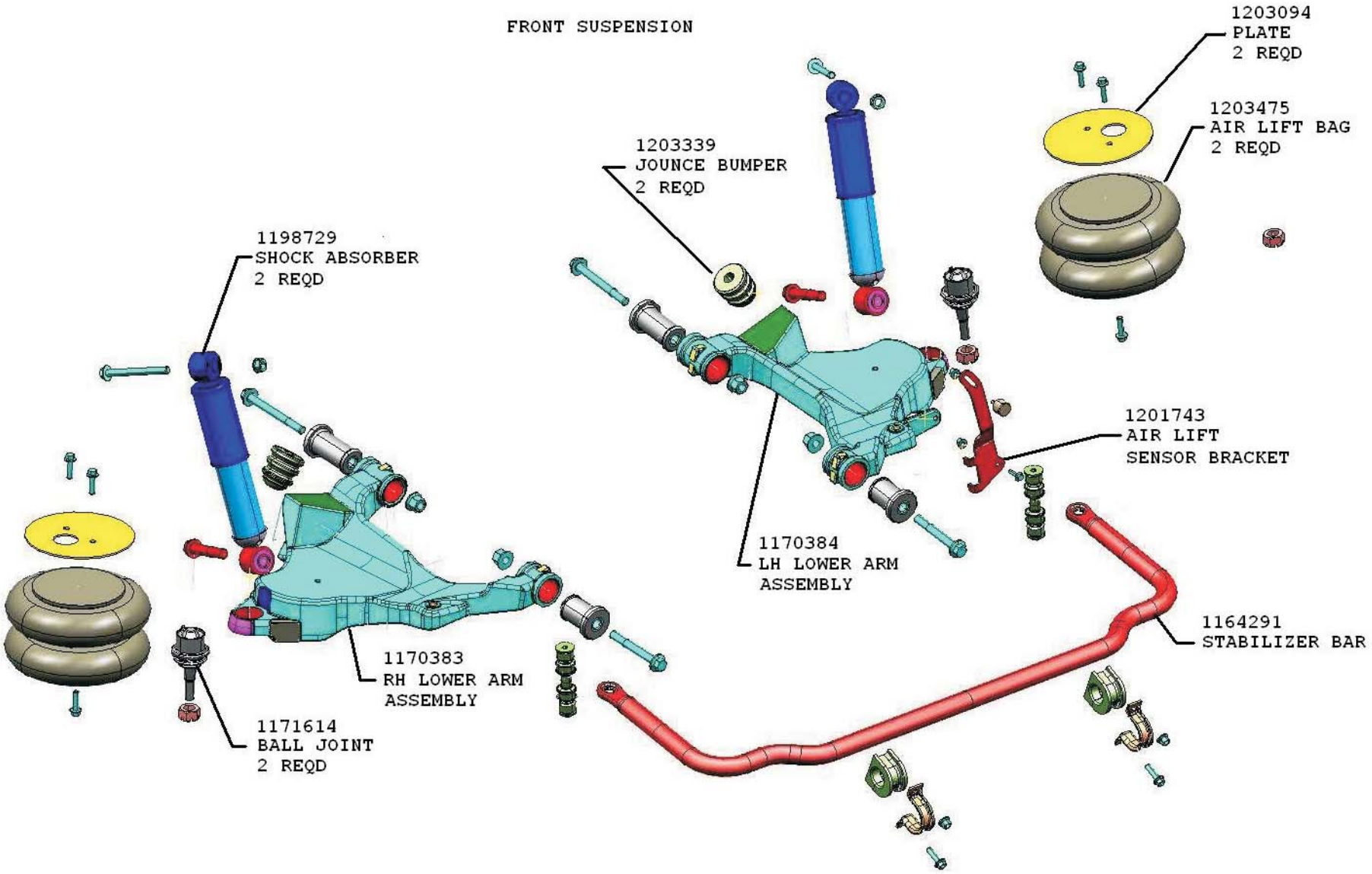
SYSTEM 03.00 FRAME

03.00-02 TOW HOOK

ITEM #	PART #	DESCRIPTION	TORQUE LB-FT
	1198637	TOW HOOK, 10,000# BLACK 5.38 X 1.25 X 3.25	100

SUSPENSION

FRONT SUSPENSION

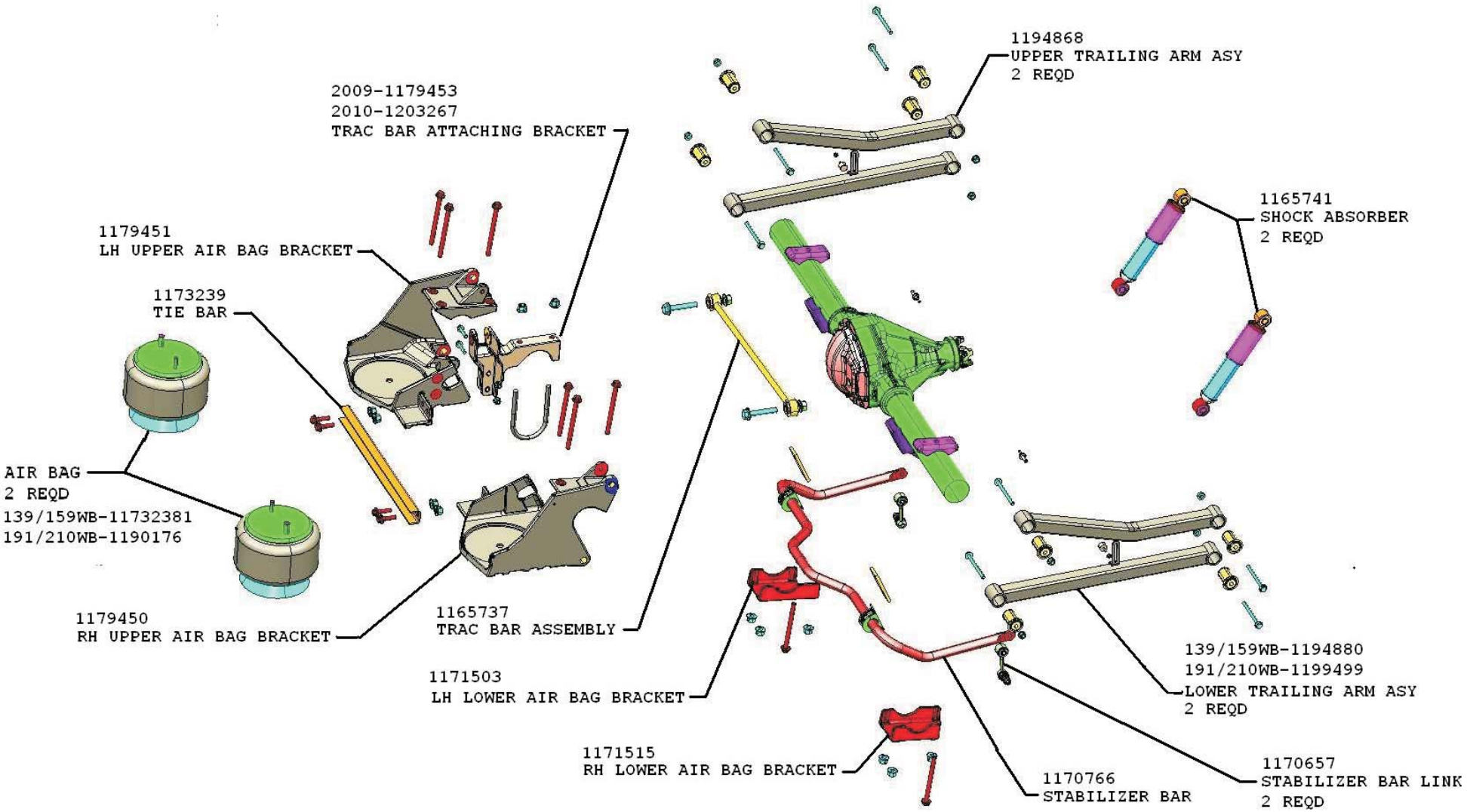


SYSTEM 04.00 SUSPENSION

04.00-02 FRONT SUSPENSION

ITEM #	PART #	DESCRIPTION	TORQUE LB-FT
1	1164291	SWAY BAR, FRT SUSPENSION	
2	1167220	AIR BAG, FRONT 8.6" DIA SPRING	
3	1167208	BRACKET, STL SHOCK UPPER LH	
4	1173237	BRACKET, STL SHOCK UPPER RH	
5	1171614	BALL JOINT, LOWER SOM GM #88982337	
6	1170738	BRACKET, SPRING SEAT FRT UPPER	
7	1198729	SHOCK ABSORBER, FRONT ASSY	
8	1170739	BRACKET, SPRING SEAT FRT LOWER	
9	1170383	CONTROL ARM, LOWER RH SOM	
10	1170384	CONTROL ARM, LOWER LH SOM	
11	A644C	BOLT, 3/8-16X51/2 SWAY BAR	TIGHTEN TILL RUBBER BUSHING IS SEATED
12	85817	NUT, 3/8-16	
13		NUT, BALL JOINT PIA OF GM # 88982337	74
14	1172608	BOLT, 5/8-11X5 SHOCK UPPER	110
15	1169635	WASHER, 5/8 FLAT	
16	80933	NUT, 5/8-11	
17	A719	BOLT, 3/4-10X3 SHOCK LOWER	145
18	88442	WASHER, 3/4 FLAT	
19		SWAY BAR BUSHING PAC RE-USE GM	
20	117326	FRONT SENSOR ASSY PIA OF HADLEY	

REAR SUSPENSION-AIR LIFT



SYSTEM 004.01 REAR SUSPENSION

ITEM #	PART #	DESCRIPTION	TORQUE LB-FT
6	1173239	BAR , STEEL AIR BAG SUPPORT	
3	86397	BOLT, FLANGE 1/2-13 X 1 1/4	105
4	85820	LOCK NUT, FLANGE 1/2-13	
14	1165730	U-BOLT 5/8-18	
11	325	LOCK NUT, NYLON 5/8-18	145
32	1165741	SHOCK ABSORBER, REAR	
37	83507A	BOLT, 14MM- 2-2.0-80 (TOP OF SHOCK)	105
38	98271	WASHER, FLAT 14MM	
36		NUT, LOCK 14MM-2.2	
43		BOLT, FLANGE 14MM -2.2 (RE-USE GM BOTTOM OF SHOCK)	105
44		NUT, FLANGE 14MM 2.2 (RE-USE GM)	
17	1170657	LINK, REAR STABILIZER BAR	
34		BOLT, (RE-USE GM)	30
42		NUT, (RE-USE GM)	
16	1170766	SWAY BAR, REAR SUSPENSION	
18	1182078	PLATE, SPACER STEEL 2" x 5" x .375: 139/159	
33		BOLT, (RE-USE GM)	30
22	1171503	BRACKET, LH AXLE MOUNTING	
35	88441	WASHER, FLAT 5/8 GR8	
24	1169639	BOLT, 5/8-11 X 8 GR8	145
40	1171515	BRACKET, RH AXLE MOUNTING	
35	88441	WASHER, FLAT 5/8 GR8	
24	1169639	BOLT, 5/8-11 X 8 GR8	145
8	1179450	BRACKET, RH AXLE UPPER	
39	88441	WASHER, FLAT 5/8 GR8	
13	1169639	BOLT, 5/8-11 X 8 GR8	145
23	80933	NUT, LOCK 5/8-11	
7	1179451	BRACKET LH AXLE UPPER	
39	88441	WASHER, FLAT 5/8 GR8	
13	1169639	BOLT, 5/8-11 X 8 GR8	145
23	80933	NUT, LOCK 5/8-11	
9	1179453	BRACKET TRACK BAR MOUNT	
12	59760	BOLT, FLANGE M12-1.75 X 60	60
10	59770	NUT, FLANGE M12-1.75	
19	1165737	TRAC BAR, 1" DIA REAR SUSPENSION	
20	723	BOLT, FLANGE 3/4-10 X 4	145
21	80934	NUT, FLANGE LOCK 3/4-10	
27	1194868	ARM ASSY, REAR SUSPENSION UPPER	
25	A 693	BOLT, 9/16 - 12 x 6" GR 8	105
26	59769	NUT 9/16 - 12	
41	692	BOLT, 9/16 - 12 x51/2" GR 8	105
29	1194880	ARM ASSY, REAR SUSPENSION LOWER 139/159	
25	A 693	BOLT, 9/16 - 12 x 6" GR 8	105
28	59769	NUT 9/16 - 12	
30	1199499	ARM ASSY, REAR SUSPENSION LOWER 191/210	
25	A 693	BOLT, 9/16 - 12 x 6" GR 8	105
28	59769	NUT 9/16 - 12	
2	1190176	AIR SPRING, REAR- 191/210	
1	1173238	AIR SPRING, REAR- 139/159	
31		AXLE ASSEMBLY, GM RE-USE	

SYSTEM 004.02 REAR SUSPENSION

AIR BAG REPLACEMENT

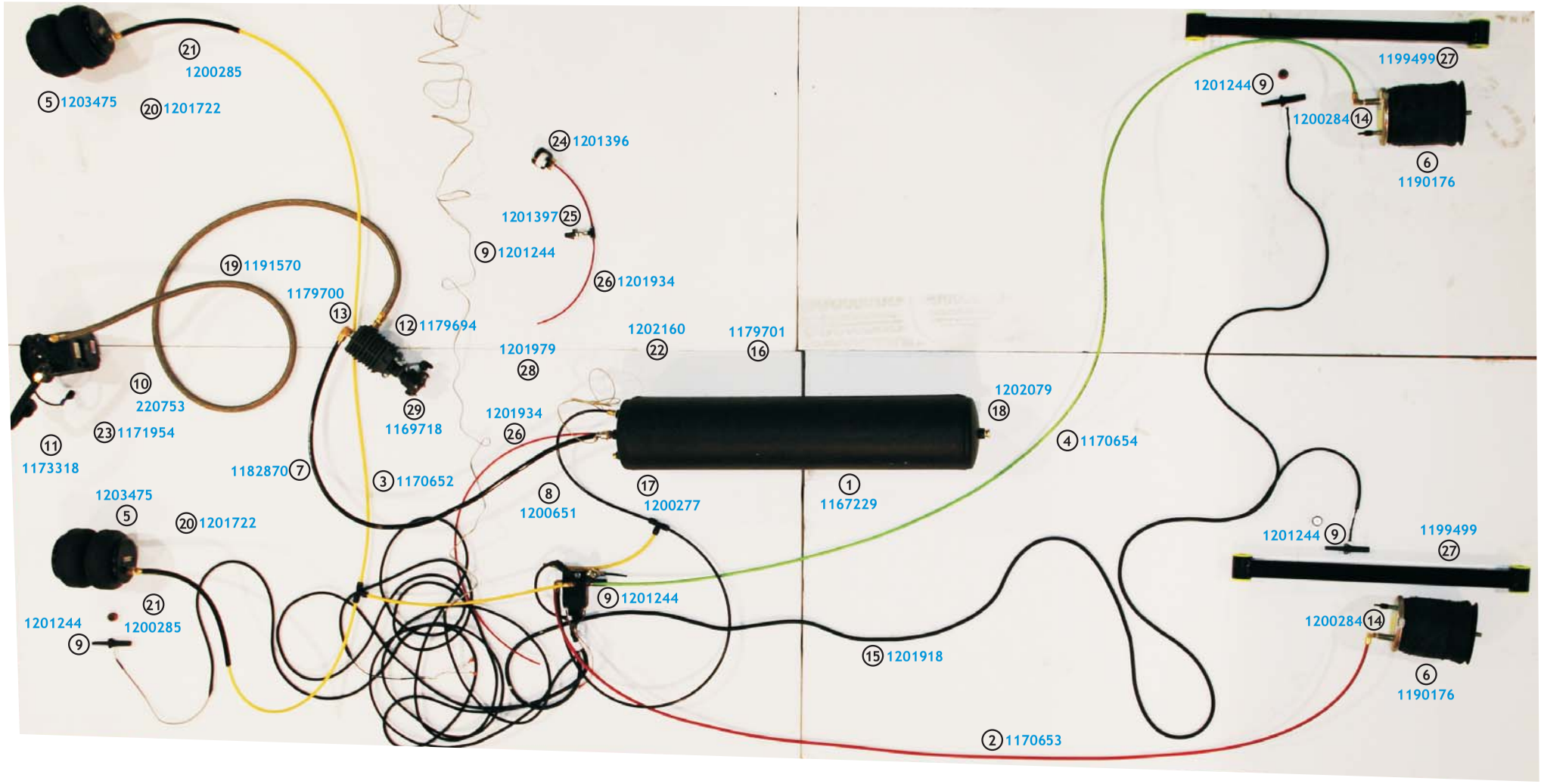
1) PLACE VEHICLE ON LIFT
2) SECURE FRONT WHEELS
3) ADJUST FRAME TO REAR AXLE CLEARANCE TO RIDE HEIGHT (5")
4) SUPPORT FRAME AND REAR AXLE ASSEMBLY TO MAINTAIN THIS DISTANCE
5) DISCONNECT RIDE HEIGHT SENSOR LINK AT AIR BAG REPLACEMENT LOCATION
6) BLEED AIR SYSTEM WITH MANUAL TANK DRAIN
7) BLEED AIR FROM BAG BEING REPLACED AT BAG AIR INLET
8) REMOVE AIR LINE AND AIR FITTING

9) REMOVE JAM NUT OVER AIR INLET AT TOP OF AIR BAG
10) REMOVE AIR BAG SECUREMENT NUTS
11) REMOVE AIR BAG ATTACHING NUT AT BOTTOM OF AIR BAG
12) COLLAPSE AND REMOVE AIR BAG
13) REMOVE 1/2 INCH FROM TOP AIR BAG MOUNTING STUD
    CAUTION DO NOT CUT AIR BAG AIR INLET FITTING
14) COLLAPSE AND INSTALL REPLACEMENT AIR BAG
15) SECURE AIR BAG WITH ATTACHING NUTS TOP AND BOTTOM
16) RE-INSTALL JAM NUT OVER AIR INLET
17) REINSTALL AIR FITTING
18) REINSTALL AIR LINE
19) RE-INSTALL RIDE HEIGHT SENSOR LINK
20) AIR UP SYSTEM WITH SHOP AIR
21) TURN IGNITION KEY TO ON POSITION
    AIR RIDE SYSTEM WILL INFLATE AIR BAGS
22) INSPECT AIR RIDE SYSTEM FOR AIR LEAKS
23) REMOVE VEHICLE FROM FRAME AND REAR AXLE SUPPORTS
24) REMOVE VEHICLE FROM LIFT
25) ROAD TEST VEHICLE CYCLING AIR RIDE SYSTEM
26) RETURN VEHICLE TO SERVICE

SYSTEM 004.02 REAR SUSPENSION

EQUIPMENT/TOOLS REQUIRED

- ADJUSTABLE VEHICLE LIFT / FRAME STANDS
- ADJUSTABLE AXLE LIFT/AXLE STANDS
- HAND TOOLS FOR BOTH ENGLISH AND METRIC FASTENERS
- SHOP LIGHTING FOR VISUAL INSPECTION


21 1200285
5 1203475
20 1201722
24 1201396
1201397 25
9 1201244
26 1201934
19 1191570
1179700
13
12 1179694
1201979
28
1202160
22
1179701
16
10
220753
29
1169718
1201934
26
23 1171954
11
1173318
1182870 7
3 1170652
8
1200651
17
1200277
1202079
18
4 1170654
1 1167229
1199499 27
1201244 9
1200284 14
6
1190176
1203475
5
20 1201722
21
1200285
1201244
9
9 1201244
15 1201918
1201244 9
1199499
27
1200284 14
6
1190176
2 1170653

AUX

Sealing connectors after functional test

1. Apply sealant around connectors and around into diagnostics boot.

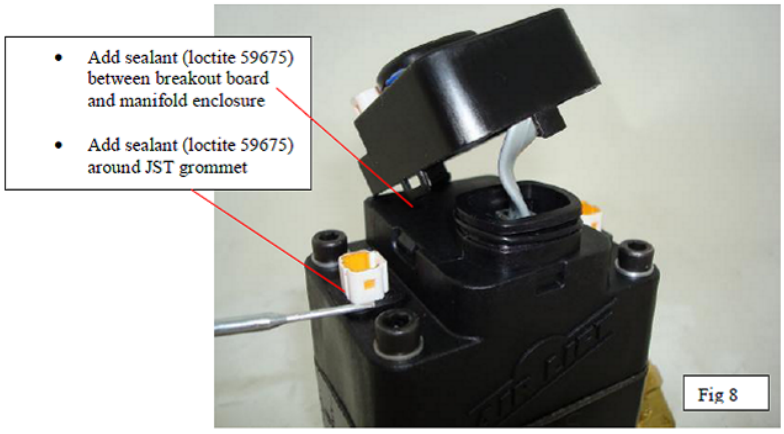

• Add sealant (loctite 59675) between breakout board and manifold enclosure
• Add sealant (loctite 59675) around JST grommet

Fig 8

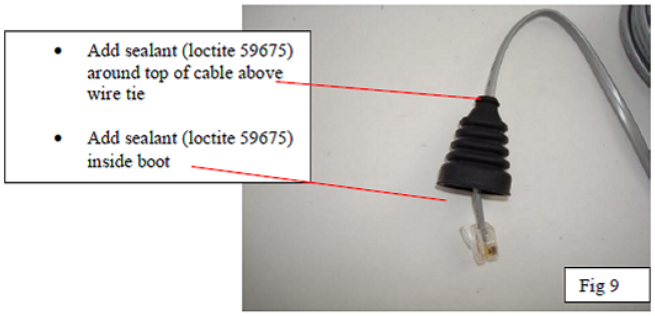


Fig 9

FastAir Functional Verification

Air Lift Company
2727 Snow Road
Lansing Mi 48917
800-248-0892

SYSTEM SCOPE:

This functional verification will allow the manufacturer of the chassis / bus to verify that the suspension controller is functioning correctly. The FastAir system can only be functionally checked after the entire system is installed correctly.

PROCEDURE:

Attaining Ride Height:

1. Apply shop air to front bumper mounted quick connect coupler
    a. This allows the compressors not to overheat during the continuous cycling of the suspension system.
2. Turn the ball valve allowing air to inflate the high pressure tank
3. Activate ignition to power the chassis
    a. After a small time delay the suspension will inflate causing the chassis to rise to ride height.
    b. Once chassis has stopped moving check and record ride height
    c. If the ride height is off adjust the height sensor magnets till the desired ride height is achieved.
        i. Moving the magnet up will cause the chassis to rise
        ii. Moving the magnet down will cause the chassis to lower
        iii. Generally you wan the magnet at the center of the height sensor at ride height.
    d. If adjustments were made check and record ride height again.

Activating Kneel Features:

1. Activate Kneel Enable on the FastAir Display.
    a. The enable will time out after 30 seconds
2. Activate the Kneel Input on the FastAir manifold.
3. Stand clear of the moving chassis as it deflates the air springs and lowers the chassis.
    a. Record heights in the kneeling position
4. Deactivate the Kneel input to allow the air springs to inflate and the chassis to rise to ride height.
    a. Measure and record ride height
5. Test second optional kneeling feature using steps 1-5 above

Database:

Air Lift suggests that a database be setup to monitor suspension heights and to ensure that each chassis meets the customer's requirements.

Vehicle Identification Number	Initial Ride Height (3B)	Adjusted Ride Height (3D)	Kneel 1 Height (3A)	Recovery Ride Height (5A)	Kneel 1 Height (3A)	Recovery Ride Height (5A)

Table 1: Sample vehicle height database

FastAir Diagnostic Interface tool manual

Air Lift Company
2727 Snow Road
Lansing Mi 48917
800-248-0892

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- **Software Installation 4**
- **Using Software 8**
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  - **Maintenance 11**
  - **Get ECU version 12**
  - **Direct Control 13**
  - **ECU Debug control 14**
  - **Virtual ECU 15**
  - **Scan for Interface Devices 16**
  - **Initialize Interface device 17**
  - **Factory Test 18**

SYSTEM SCOPE:

This interface tool is designed for the service technician to use while diagnosing FastAir suspension related problems. The interface tool requires working knowledge of windows and the ability to install the software.

PARTS LIST:

- USB transceiver
  - Air Lift PN 24669
- USB cable A-B M/M
  - Air Lift PN 26776
- RJ-11 diagnostics cable
  - Air Lift PN 16560
- FastAir interface tool software, and a PC to operate the software.

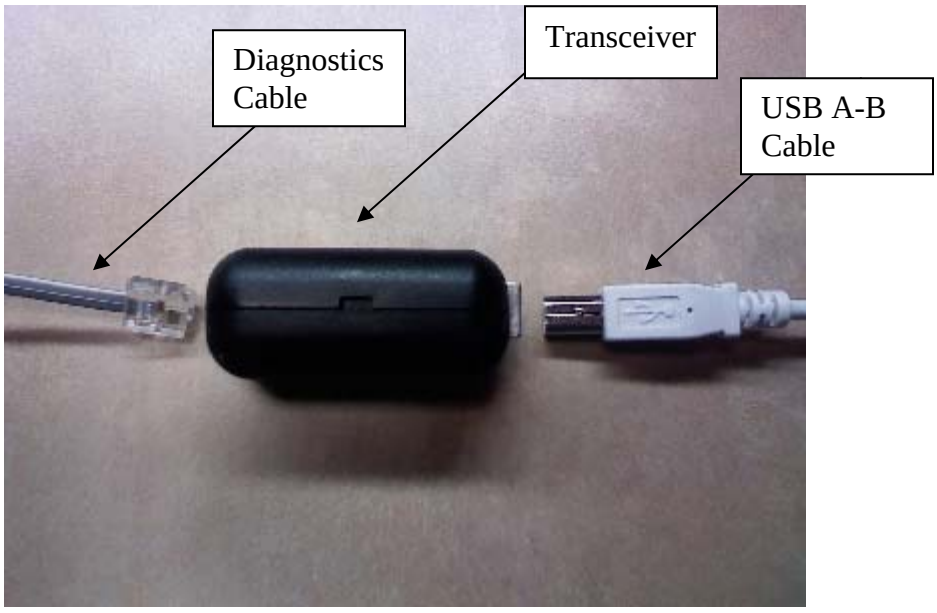
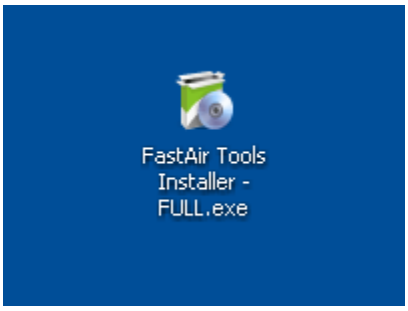


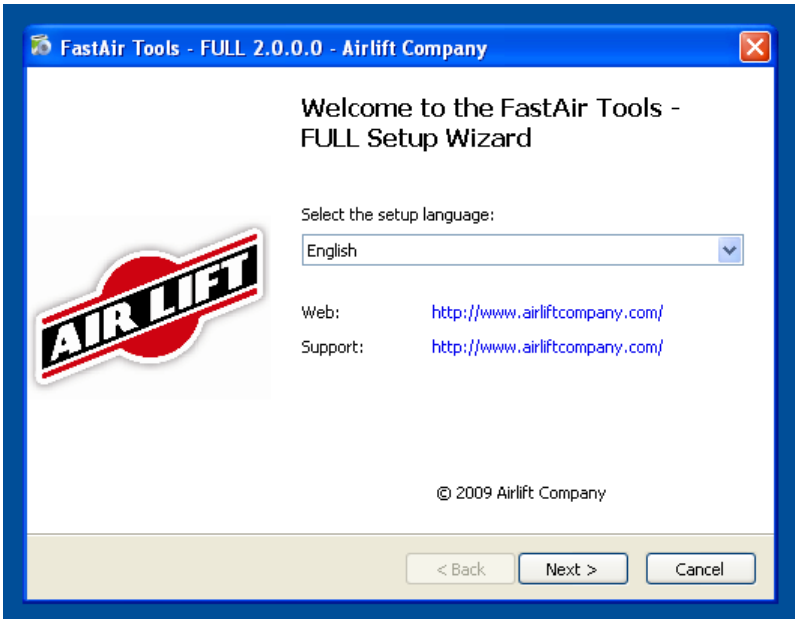
Figure 1: Diagnostics parts

INSTALLING SOFTWARE:

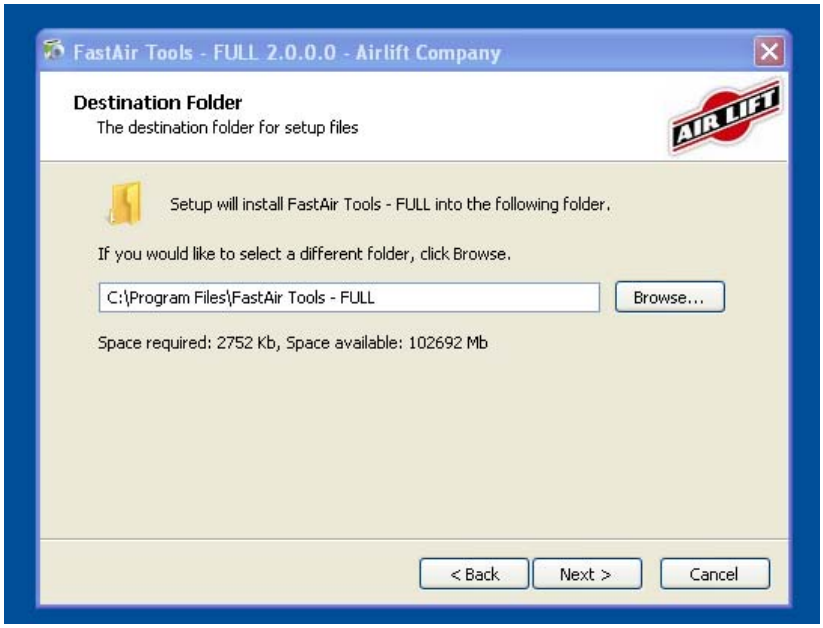
- Download installer application from http://www.Airlift.com
- Double click the “FastAir Tools Installer.exe” file to install the drivers and application



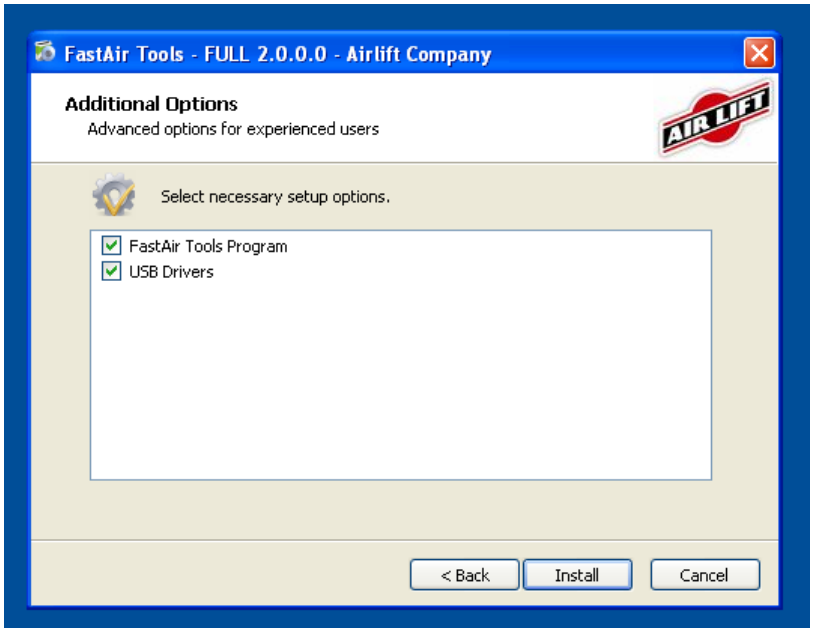
FastAir tools installer



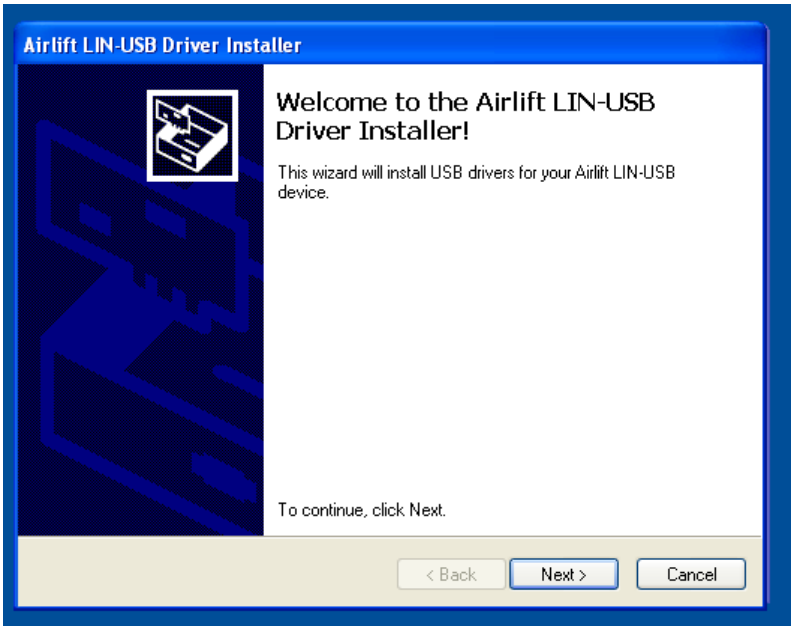
Select language and click the next button


FastAir Tools - FULL 2.0.0.0 - Airlift Company
Destination Folder
The destination folder for setup files
AIR LIFT
Setup will install FastAir Tools - FULL into the following folder.
If you would like to select a different folder, click Browse.
C:\Program Files\FastAir Tools - FULL
Browse...
Space required: 2752 Kb, Space available: 102692 Mb
< Back
Next >
Cancel

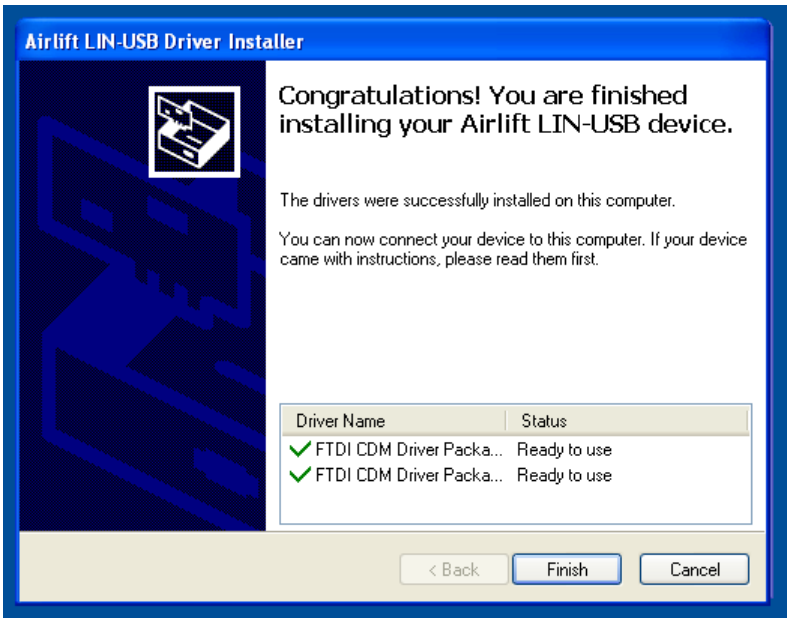
Select the path where you would like the program to be installed and select next



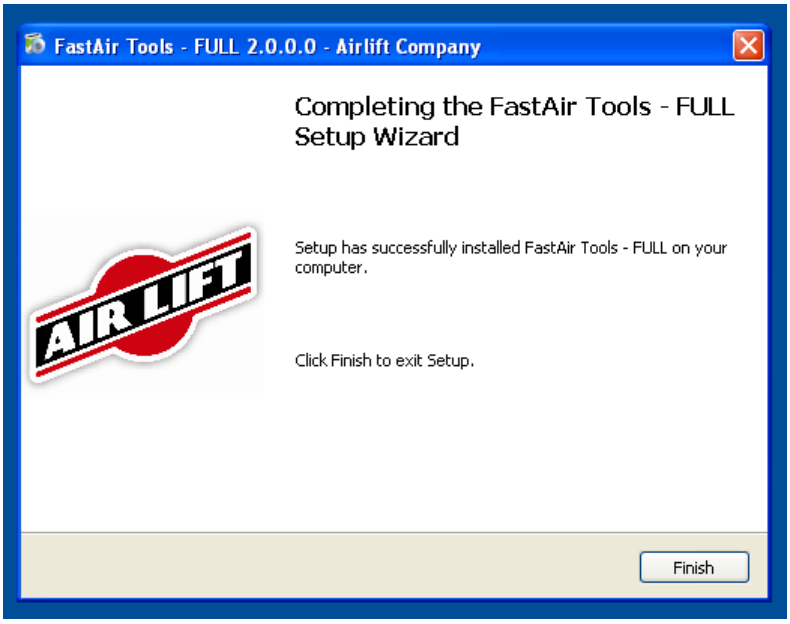
Check boxes for FastAir Tools Program and USB drivers and click install


Airlift LIN-USB Driver Installer
Welcome to the Airlift LIN-USB Driver Installer!
This wizard will install USB drivers for your Airlift LIN-USB device.
To continue, click Next.
< Back
Next >
Cancel

Click Next


Airlift LIN-USB Driver Installer
Congratulations! You are finished installing your Airlift LIN-USB device.
The drivers were successfully installed on this computer.
You can now connect your device to this computer. If your device came with instructions, please read them first.
Driver Name
Status
FTDI CDM Driver Packa...
Ready to use
FTDI CDM Driver Packa...
Ready to use
< Back
Finish
Cancel

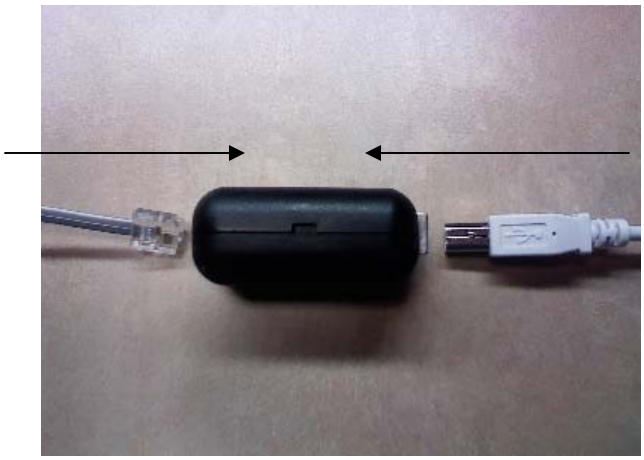
Click finish


FastAir Tools - FULL 2.0.0.0 - Airlift Company
Completing the FastAir Tools - FULL Setup Wizard
Setup has successfully installed FastAir Tools - FULL on your computer.
Click Finish to exit Setup.
Finish

Click finish

USING THE SOFTWARE:

- Connect the USB cable to the PC and the FastAir transceiver
- Connect the FastAir transceiver to the diagnostics connector



- Open the interface tool software by clicking on the desktop Icon created during installation.

- The main menu will appear and allow the user the ability to choose from different menus. Each different menu will allow the user the ability to view / modify suspension information.

    - Gen1 Communications do not support all menus
    - Some users may not have access to all the menus

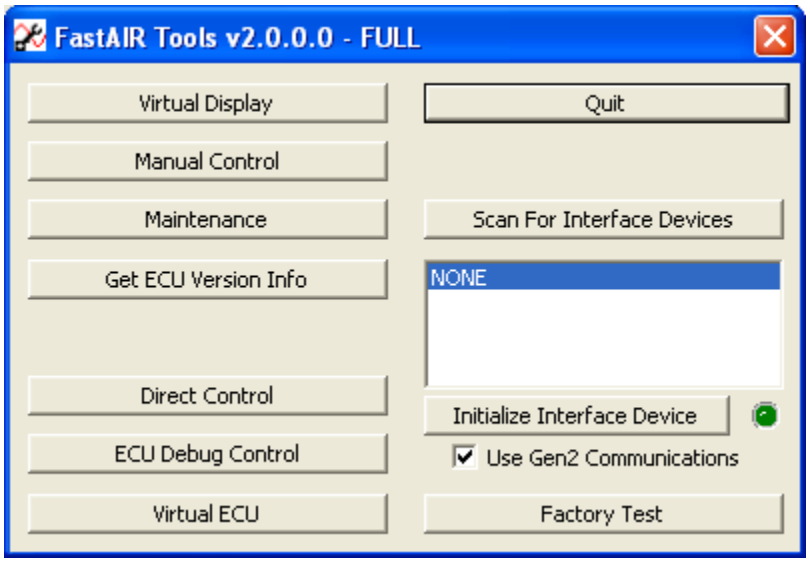


Figure 1: Main menu

VIRTUAL DISPLAY MENU

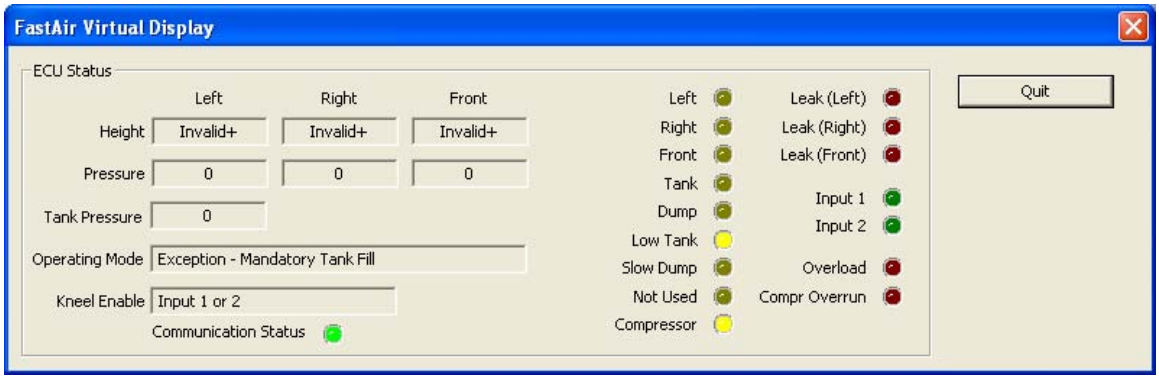


Figure 2: Virtual Display Menu

- The virtual display allows the user to view the following
  - Left side of Menu (analog inputs)
    - Suspension height for left, right, and front (note in figure 2 the height sensors are not installed and results in and invalid measurement.)
    - Spring pressure for left, right, front, and tank
    - The current mode of operation
    - Kneel enable status
    - Communication Status (blinking green = connection, Red = no connection)
  - Right side of menu (digital inputs and outputs)
    - Valve status of Left, Right, Front, Tank, Dump valves
    - Digital GROUND Outputs
      - Low tank = Pin 3 (right side 4-way connector)
      - Slow Dump = Pin 1 (right side 4-way connector)
      - Compressor = Pin 4 (right side 4-way connector)
    - Leak detection on springs
    - Digital GROUND Inputs
      - Input 1 = Kneel = Pin 1 (left side 4-way connector)
      - Input 2 = Raise = Pin 2 (left side 4-way connector)
    - Overload detection (spring has too high pressure)
    - Compressor overrun

MANUAL CONTROL MENU

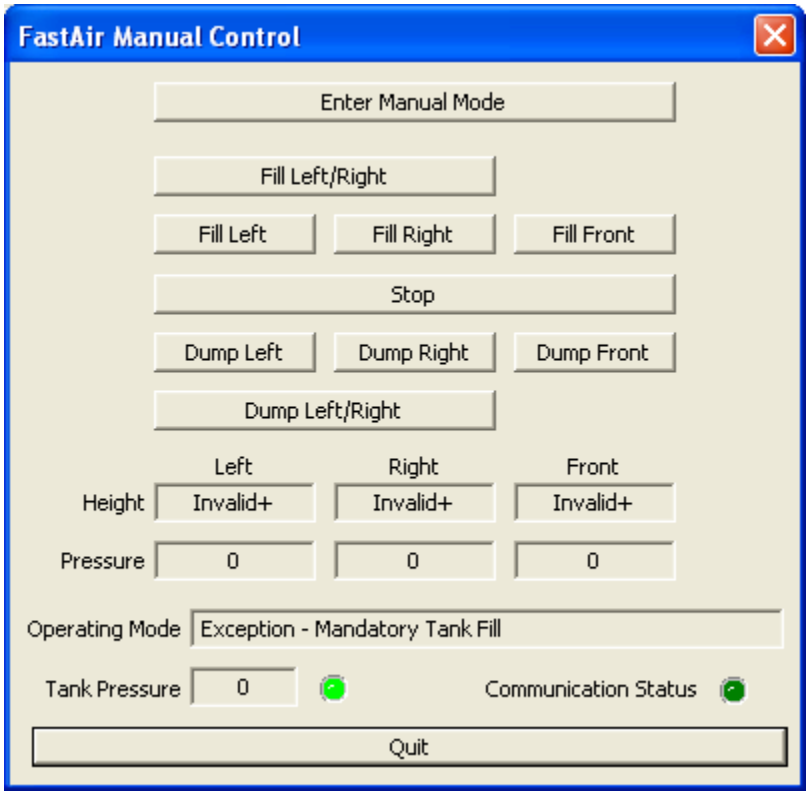


Figure 3: Manual Control Menu

- The Manual control menu allows the user to fill / deflate the springs
    - The manifold will react to the command until the “STOP” button is pressed
    - The spring heights and pressures are displayed for reference.
    - The system will not react when in the “Exception – Mandatory Tank Fill” operating mode

MAINTENANCE MENU

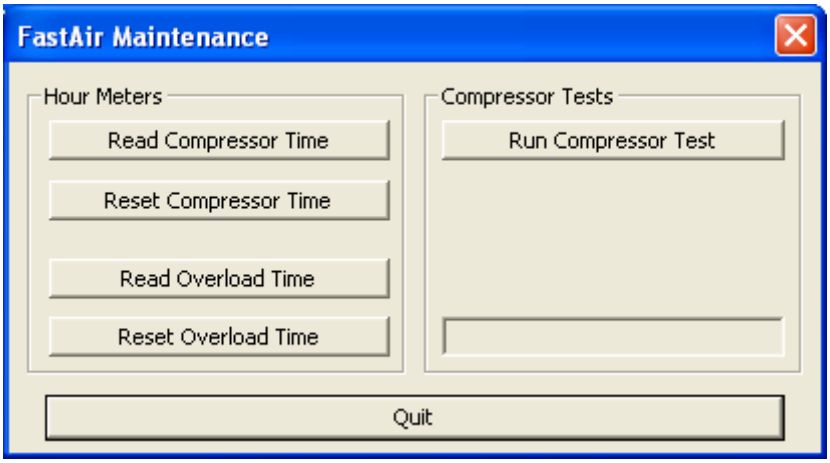


Figure 4: Maintenance menu

- The Maintenance test allows the user to test the compressor, read the compressor run time, and read the overload time (time a spring has too much pressure in it.)
    - To run the compressor self test click the “Run Compressor Test” button
        - The tank will deflate to 100 PSIg and then the compressor(s) will inflate the tank to 150 PSIg
        - The time to inflate will be displayed on the screen

ECU VERSION MENU

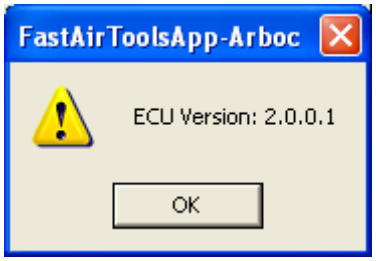


Figure 5: ECU version menu

- The ECU version menu displays the software version that has been programmed into the ECU

DIRECT CONTROL MENU

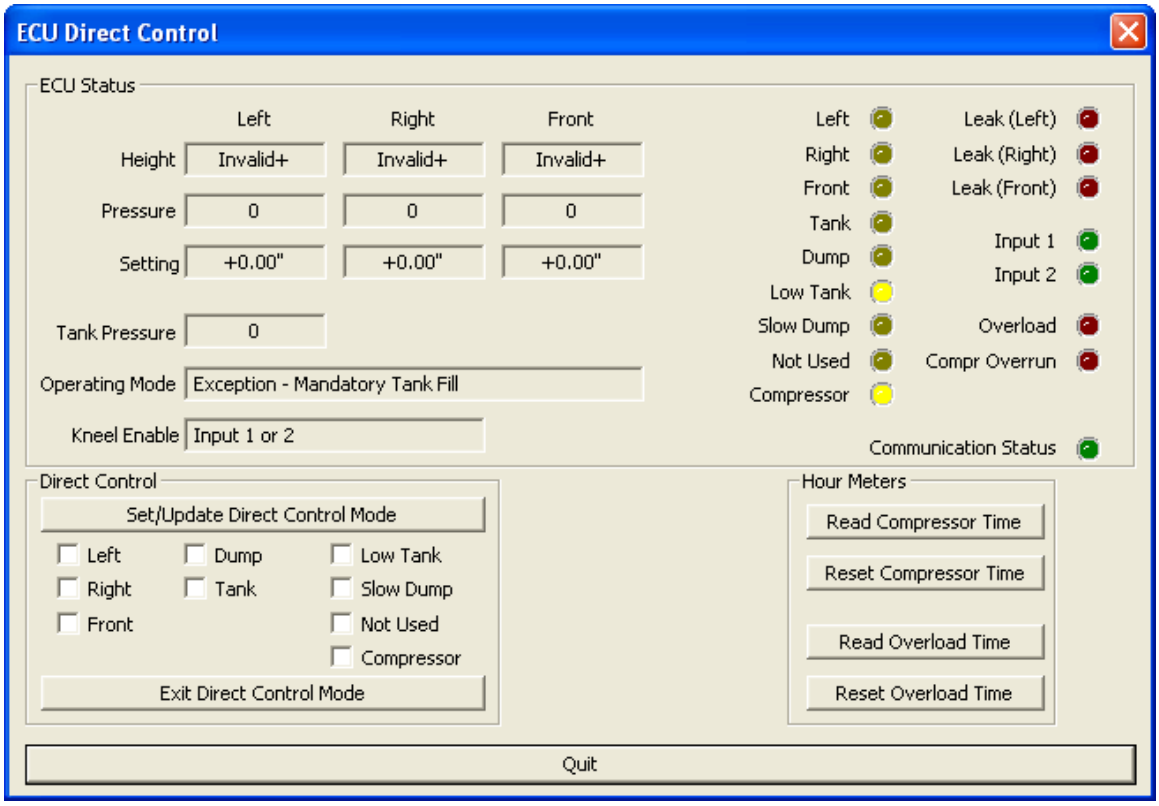
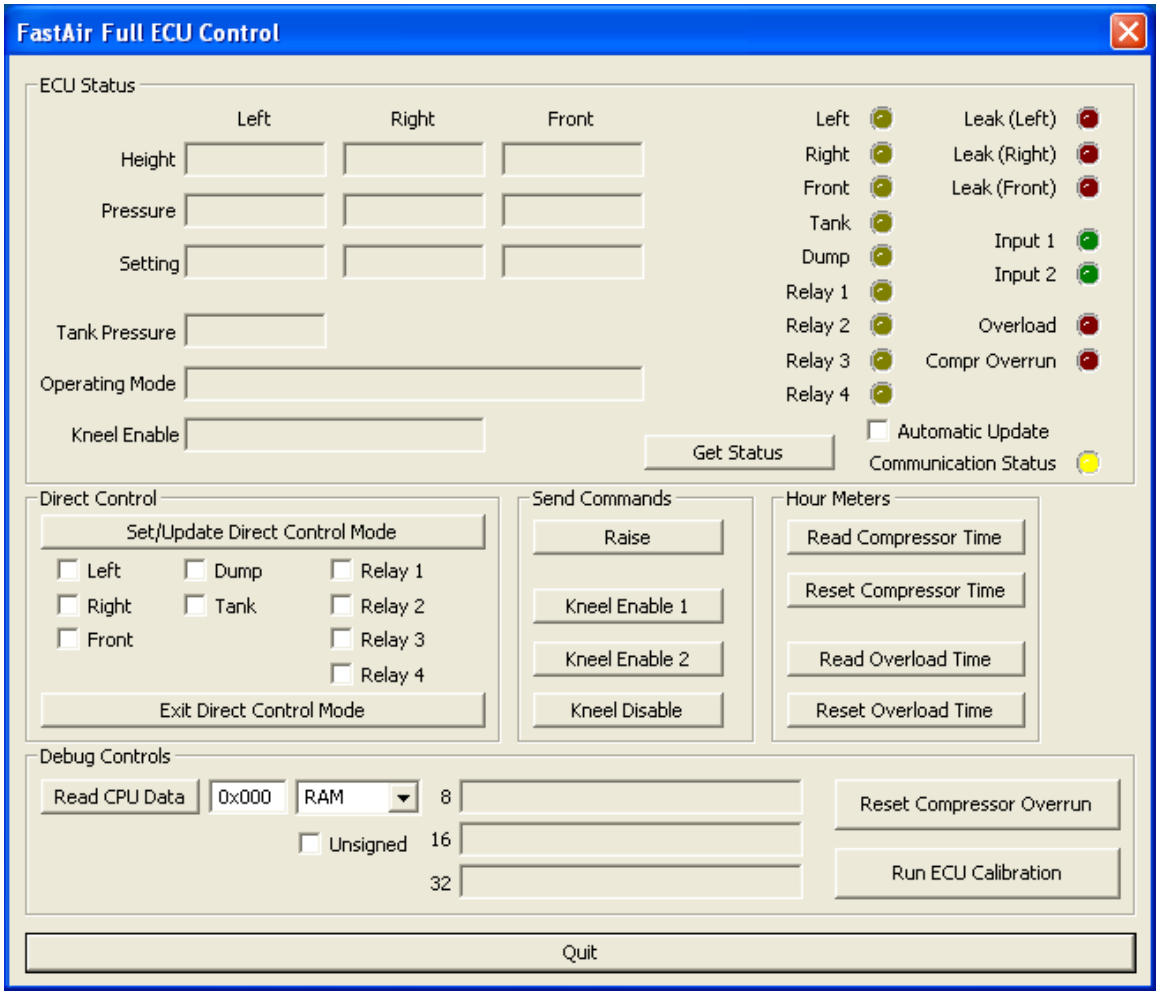


Figure 6: Direct control menu

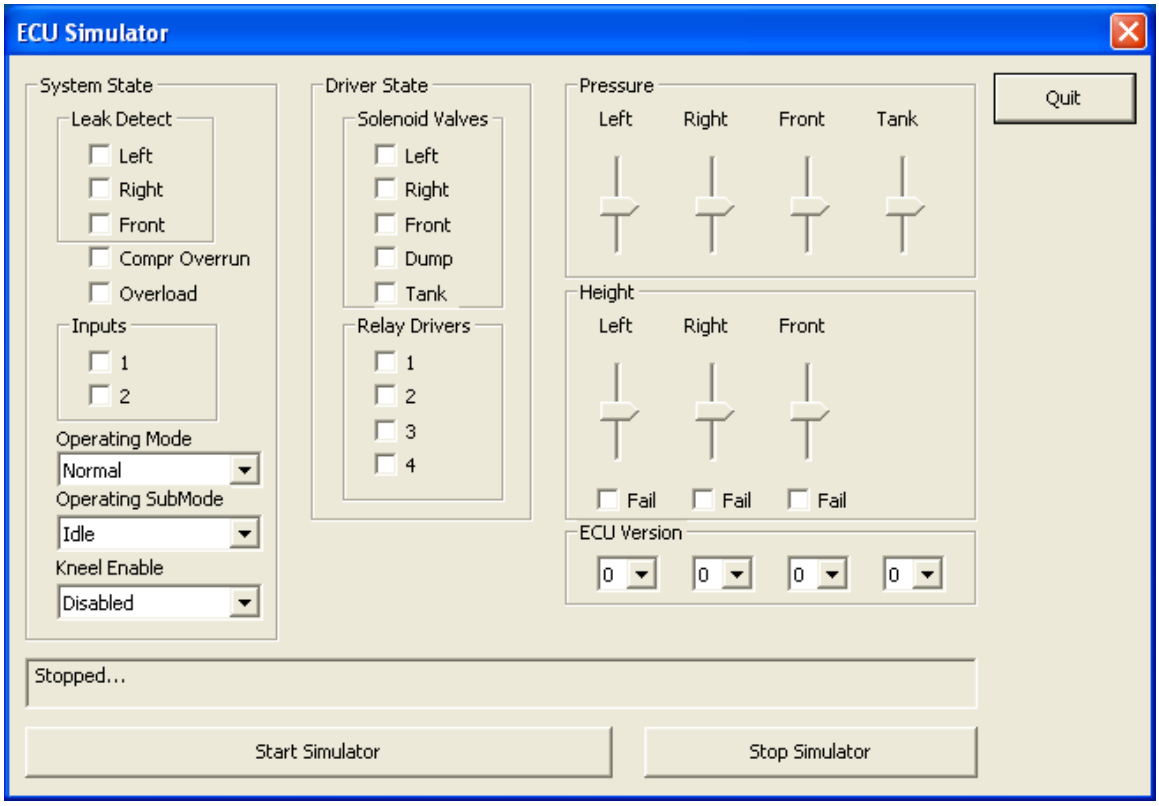
- The ECU direct control menu allows the user advance control of the manifold beyond what the"Manual control' and "Virtual Display" menu offer.
    - In this menu the user can actuate individual valves and digital ground outputs within the manifold
        - First click the "Set/Update Direct Control Mode" button to enter into the "Diagnostic- Direct" operating mode
        - From the Diagnostic Direct mode the user can click on each check box to activate the device
        - To send the new command to the manifold the "Set/Update Direct Control Mode" must be clicked after every update to the devices.
        - The user must click "Exit Direct Control Mode" or cycle power to resume normal operating modes

ECU DEBUG CONTROL MENU



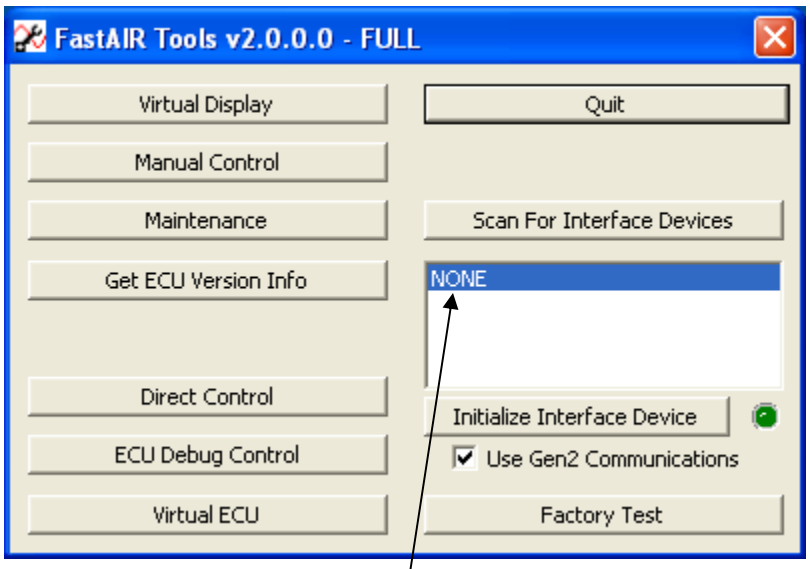
- This menu allows advance troubleshooting by reading the memory in the ECU and should only be used by Air Lift engineers.

VIRTUAL ECU MENU

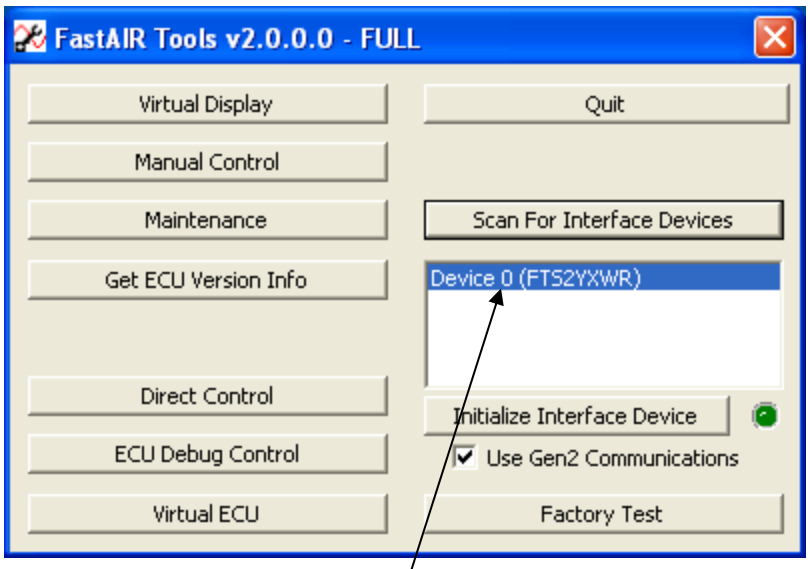


- This menu is used to simulate certain conditions to verify that the display is receiving the messages properly.

SCAN FOR INTERFACE DEVICE



Device not connected



Device connected

- If “None” is displayed in the device box check your USB cable connections and verify that you have downloaded the drivers correctly

INITALIZE DEVICE

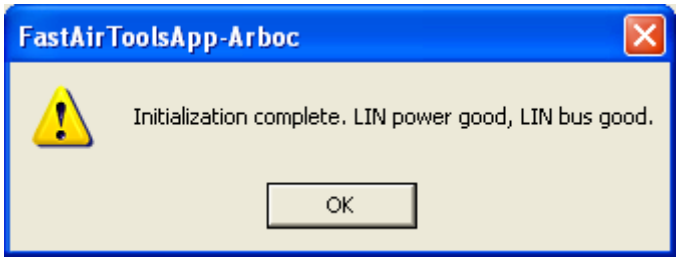


Figure 7a: Initialize Device Menu

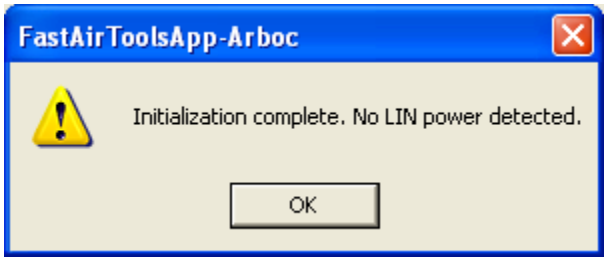
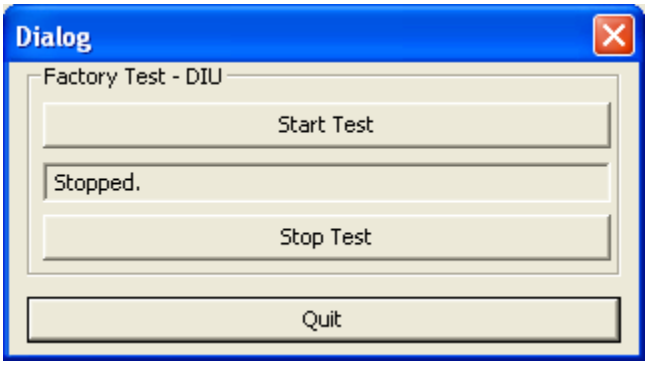


Figure 7b: Initialize Device menu

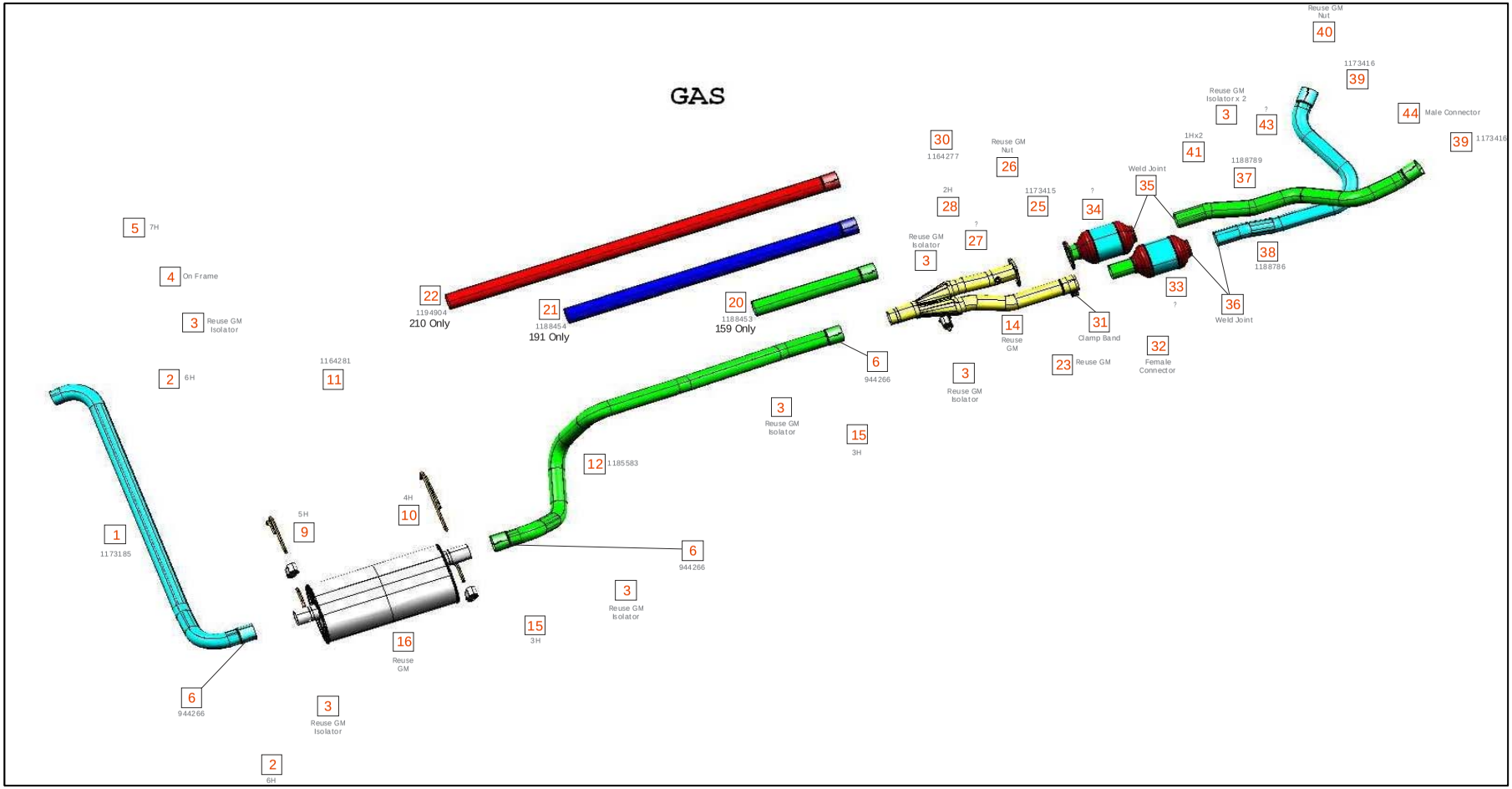
- If the device is connected the dialog box in 7a will be displayed
- If there is a problem with power or communication the dialog box in 7b will be displayed
    - Check power to the manifold and to the LIN transceiver
    - Verify that the manifold software works with your level of diagnostics software.

FACTORY TEST



- This is used to test the display functions of the optional display

EXHAUST



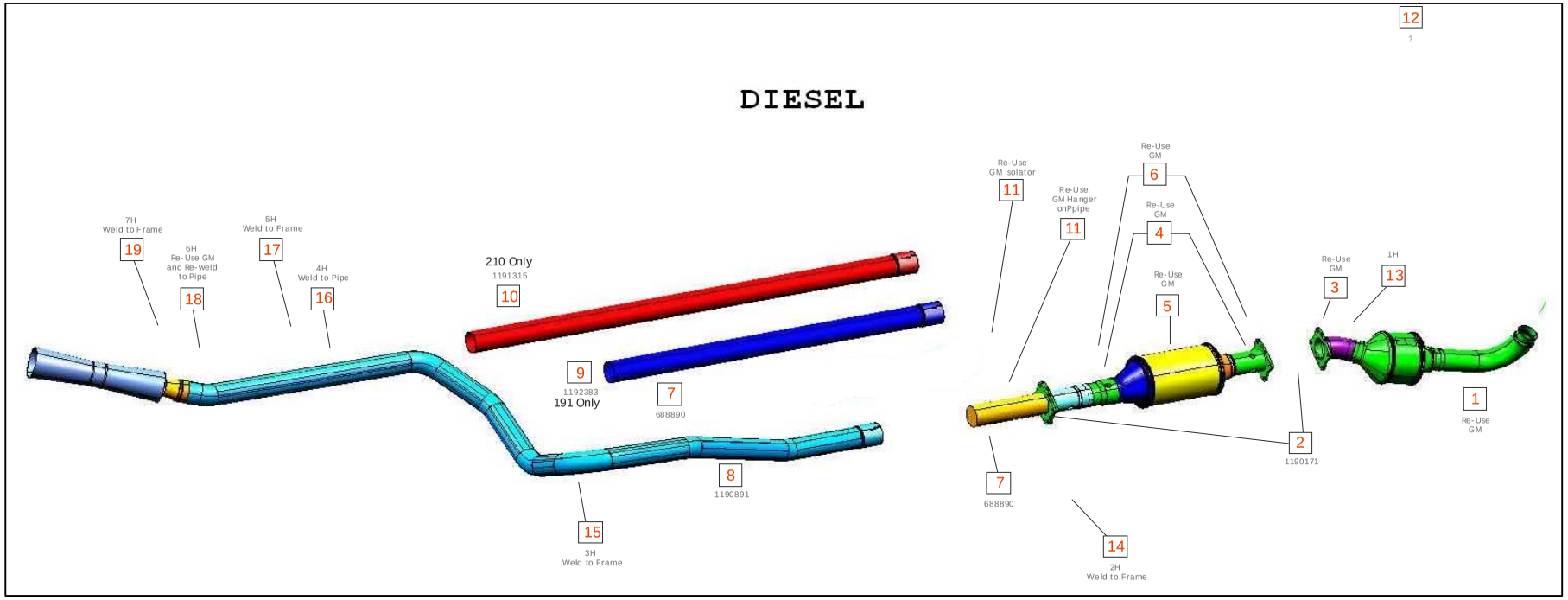
VEHICLE SYSTEM
EXHAUST
JJL

10/30/2009

SYSTEM 05.00 EXHAUST

SYSTEM 05.00-01 GASOLINE

ITEM #	PART #	DESCRIPTION	TORQUE LB-FT
	1173416	GASKET, PIPE MANIFOLD	
		NUT, EXHAUST MANIFOLD RE-USE GM	48
	1188786	PIPE, DOWN 3" 409 SS LH GAS	
	1188789	PIPE, DOWN 3" 409 SS RH GAS	
		CATALYST, RE-USE GM	
		O 2 SENSOR, RE-USE GM MUFFLER INLET MALE CONNECTOR	
		O 2 SENSOR, RE-USE GM REAR CAT FEMALE CONNECTOR	
	1173415	GASKET, CATALYST TO "Y" PIPE	
		NUT, RE-USE GM (CAT TO "Y" PIPE)	48
		CLAMP, RE-USE GM (CAT TO "Y" PIPE)	
	1185583	PIPE, MUFFLER INLET	
	944266	CLAMP, EXHAUST 3"	25
		MUFFLER, RE-USE GM	
	1173185	TAILPIPE, 3" ALUMINIZED GAS	
	1188453	EXHAUST EXTENSION, 3 X 32, 159 WB	
	1188454	EXHAUST EXTENSION, 3 X 51, 191 WB	
	1194904	EXHAUST EXTENSION, 3 X 69, 210 WB	
1H		HANGER, DOWN PIPE 2 REQUIRED	
2H		HANGER, "Y" PIPE	
3H		HANGER, MUFFLER INLET PIPE	
4H		HANGER, MUFFLER INLET	
5H		HANGER, MUFFLER OUTLET	
6H		HANGER, TAILPIPE	
7H		HANGER, TAILPIPE OUTLET	
		ISOLATOR, HANGER (8) RE-USE GM	
	1164277	HEAT SHIELD, OVER CATALYST .030 X 12 X 18	
	1164281	HEAT SHIELD, OVER MUFFLER .030 X 16 X 30	



VEHICLE SYSTEM
EXHAUST
JJL

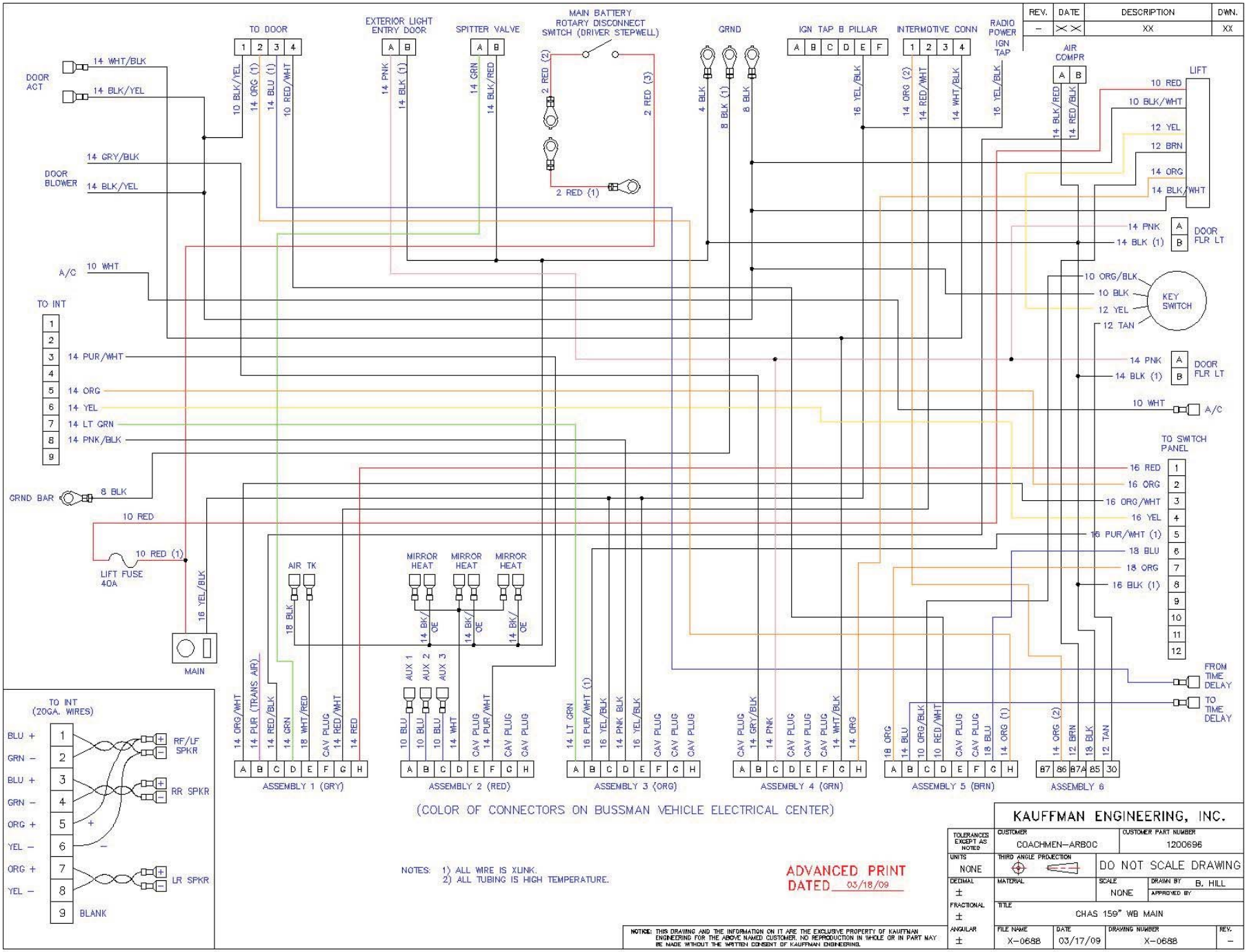
10/30/2009

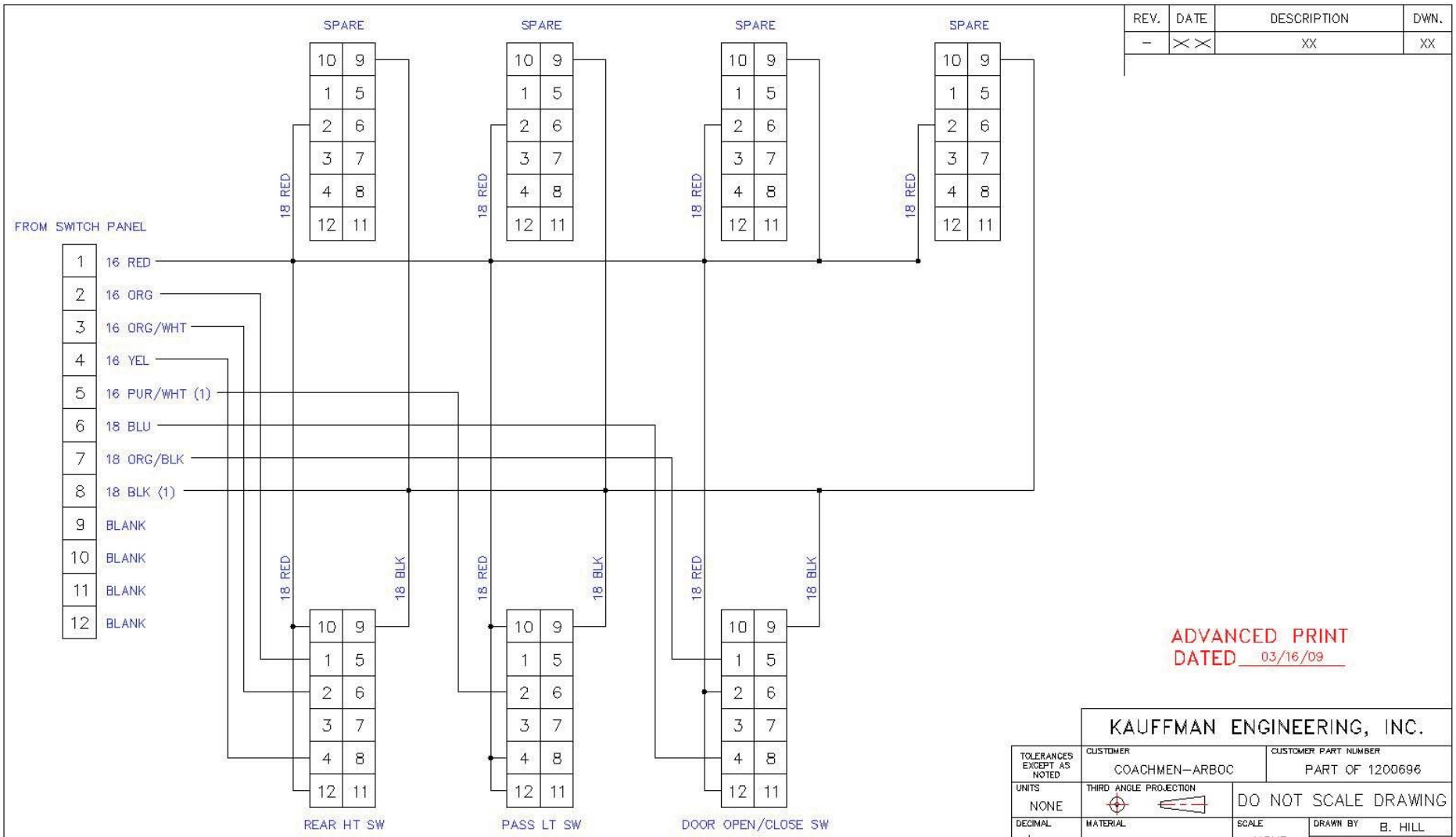
SYSTEM 05.00 EXHAUST

SYSTEM 05.00-02 DIESEL

ITEM #	PART #	DESCRIPTION	TORQUE LB-FT
1		CATALYST AND PIPE ASSY RE-USE GM	
2	1190171	GASKET, CAT TO PARTICULATE TRAP	
3		BOLT, 12MM RE-USE GM	
4		NUT, 12MM RE-USE GM	30
5		PARTICULATE TRAP ASSY, RE-USE GM	
2	1190171	GASKET, PART TRAP TO TAILPIPE	
3		BOLT, 12MM RE-USE GM	
4		NUT, 12MM RE-USE GM	30
6		SENSOR, DIESEL REGREN RE-USE GM	
7	688890	CLAMP, 3 1/2 INCH	25
8	1190891	TAILPIPE, 3 1/2 INCH WITH GM OUTLET	
9	1192383	EXTENSION, 3 1/2 X 20 191WB	
10	1191315	EXTENSION, 3 1/2 X 32 210WB	
1H		HANGER, 90 deg WELD TO PIPE (ISOLATOR IN CROSSMEMBER)	
2H		HANGER, WELD TO RH FRAME RAIL	
3H		HANGER, "J" 10 INCH WELD TO PIPE	
4H		HANGER, "J" 8 INCH WELD TO PIPE	
5H		HANGER, 90 deg WELD TO LH FRAME RAIL	
6H		HANGER, GM "Y" RE-USE & REWELD TO PIPE	
7H		HANGER, 10 INCH OFFSET WELD TO LH FRAME RAIL	
11		ISOLATOR, HANGER (4) RE-USE GM	
12		HEAT SHIELD, OVER CATALYST .030 X 12 X 18	

ELECTRICAL


REV. | DATE | DESCRIPTION | DWN.
– | XX | XX | XX
TO DOOR
EXTERIOR LIGHT ENTRY DOOR
SPITTER VALVE
MAIN BATTERY ROTARY DISCONNECT SWITCH (DRIVER STEPWELL)
GRND
IGN TAP B PILLAR
INTERMOTIVE CONN
RADIO POWER IGN TAP
AIR COMPR
LIFT
DOOR ACT
14 WHT/BLK
14 BLK/YEL
DOOR BLOWER
14 GRY/BLK
14 BLK/YEL
A/C
10 WHT
TO INT
14 PUR/WHT
14 ORG
14 YEL
14 LT GRN
14 PNK/BLK
GRND BAR
8 BLK
10 RED
10 RED (1)
LIFT FUSE 40A
16 YEL/BLK
MAIN
AIR TK
18 BLK
MIRROR HEAT
MIRROR HEAT
MIRROR HEAT
14 BK/OE
AUX 1
AUX 2
AUX 3
10 RED
10 BLK/WHT
12 YEL
12 BRN
14 ORG
14 BLK/WHT
14 PNK
14 BLK (1)
DOOR FLR LT
10 ORG/BLK
10 BLK
12 YEL
12 TAN
KEY SWITCH
TO SWITCH PANEL
16 RED
16 ORG
16 ORG/WHT
16 YEL
16 PUR/WHT (1)
18 BLU
18 ORG
16 BLK (1)
FROM TIME DELAY
TO TIME DELAY
ASSEMBLY 1 (GRY)
ASSEMBLY 2 (RED)
ASSEMBLY 3 (ORG)
ASSEMBLY 4 (GRN)
ASSEMBLY 5 (BRN)
ASSEMBLY 6
TO INT (20GA. WIRES)
BLU +
GRN –
BLU +
GRN –
ORG +
YEL –
ORG +
YEL –
RF/LF SPKR
RR SPKR
LR SPKR
BLANK
(COLOR OF CONNECTORS ON BUSSMAN VEHICLE ELECTRICAL CENTER)
NOTES: 1) ALL WIRE IS XLINK.
2) ALL TUBING IS HIGH TEMPERATURE.
ADVANCED PRINT
DATED 03/18/09
KAUFFMAN ENGINEERING, INC.
CUSTOMER: COACHMEN–ARBOC
CUSTOMER PART NUMBER: 1200696
UNITS: NONE
THIRD ANGLE PROJECTION
DO NOT SCALE DRAWING
DECIMAL ±
MATERIAL
SCALE: NONE
DRAWN BY: B. HILL
APPROVED BY
FRACTIONAL ±
TITLE: CHAS 159" WB MAIN
ANGULAR ±
FILE NAME: X–0688
DATE: 03/17/09
DRAWING NUMBER: X–0688
REV. –
NOTICE: THIS DRAWING AND THE INFORMATION ON IT ARE THE EXCLUSIVE PROPERTY OF KAUFFMAN ENGINEERING FOR THE ABOVE NAMED CUSTOMER. NO REPRODUCTION IN WHOLE OR IN PART MAY BE MADE WITHOUT THE WRITTEN CONSENT OF KAUFFMAN ENGINEERING.



REV.	DATE	DESCRIPTION	DWN.
–	><	XX	XX

ADVANCED PRINT
DATED 03/16/09

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2) ALL TUBING IS HIGH TEMPERATURE.

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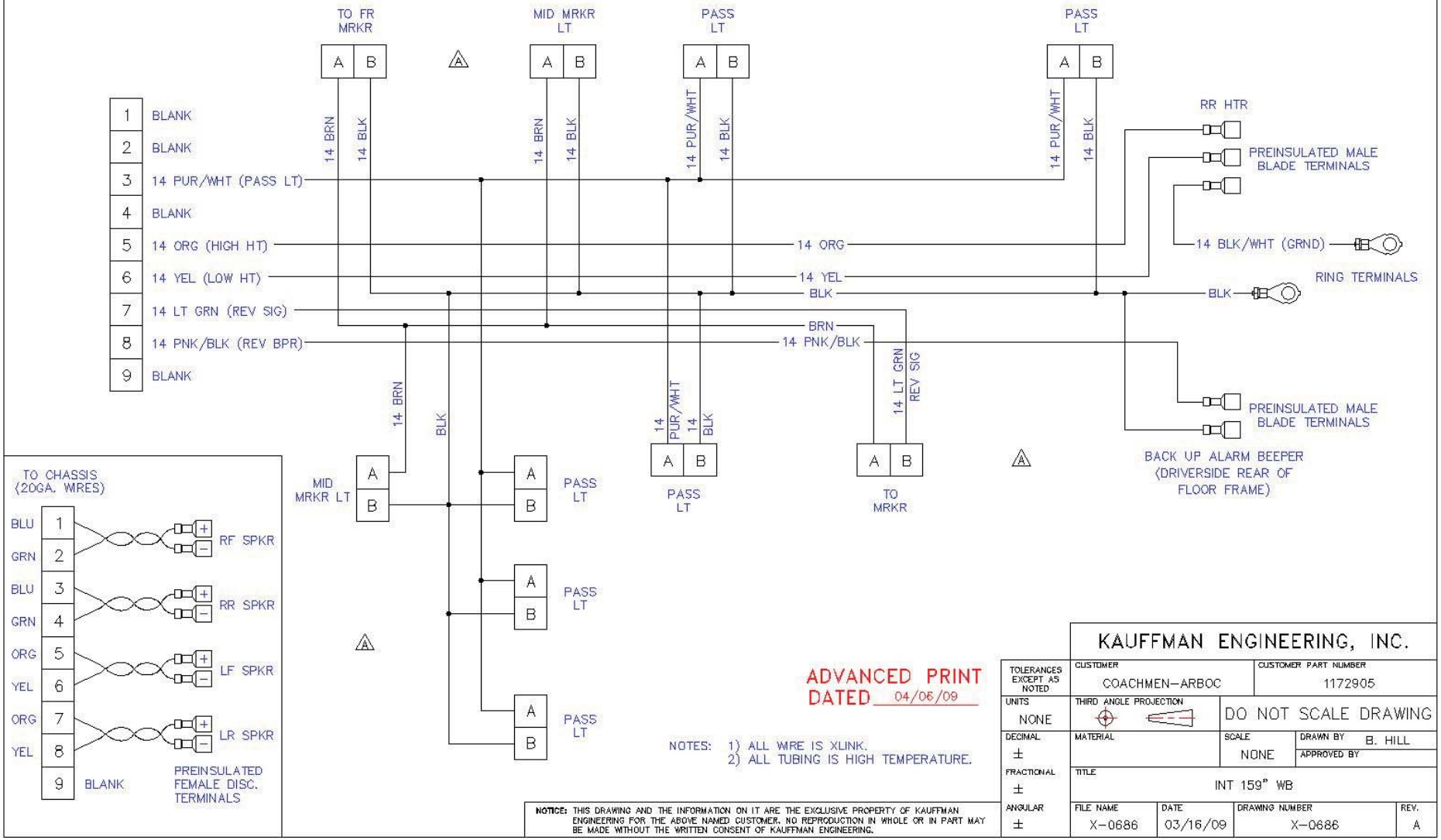
KAUFFMAN ENGINEERING, INC.

TOLERANCES EXCEPT AS NOTED	CUSTOMER: COACHMEN–ARBOC	CUSTOMER PART NUMBER: PART OF 1200696	
UNITS: NONE	THIRD ANGLE PROJECTION	DO NOT SCALE DRAWING	
DECIMAL: ±	MATERIAL	SCALE: NONE	DRAWN BY: B. HILL / APPROVED BY
FRACTIONAL: ±	TITLE: SWITCH PANEL		
ANGULAR: ±	FILE NAME: X–0687	DATE: 03/16/09	DRAWING NUMBER: X–0687 / REV.: –

REV.	DATE	DESCRIPTION	DWN.
A	04/06/09	REMOVED L & R TURN LT	BEH



ADVANCED PRINT
DATED 04/06/09

NOTES: 1) ALL WIRE IS XLINK.
2) ALL TUBING IS HIGH TEMPERATURE.

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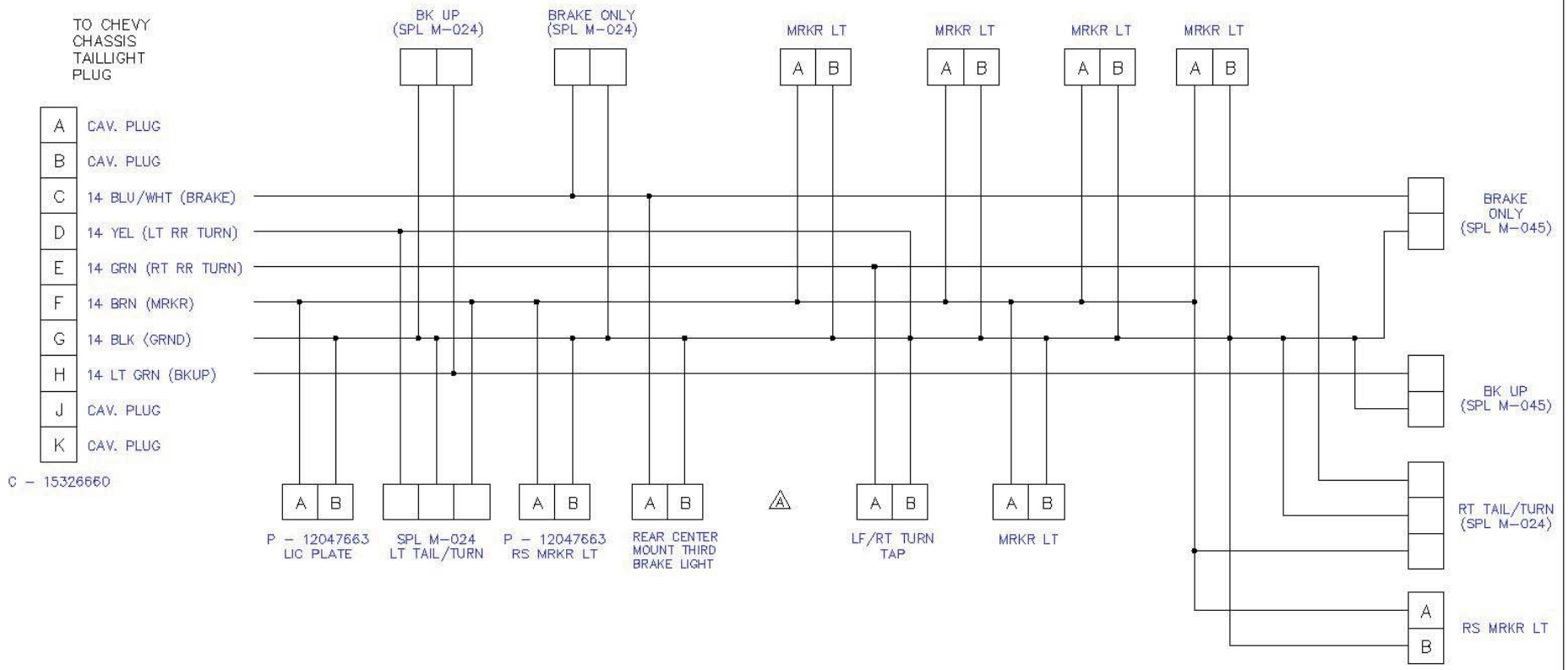
KAUFFMAN ENGINEERING, INC.

TOLERANCES EXCEPT AS NOTED	CUSTOMER: COACHMEN–ARBOC	CUSTOMER PART NUMBER: 1172905	
UNITS: NONE	THIRD ANGLE PROJECTION	DO NOT SCALE DRAWING	
DECIMAL ±	MATERIAL	SCALE: NONE	DRAWN BY: B. HILL
FRACTIONAL ±			APPROVED BY
ANGULAR ±	TITLE: INT 159" WB		
	FILE NAME: X–0686	DATE: 03/16/09	DRAWING NUMBER: X–0686 REV: A

REV.	DATE	DESCRIPTION	DWN.
A	04/06/09	REMOVED MRKR/REV SIG TAP	BEH



NOTES: 1) ALL WIRE IS XLINK.
2) ALL TUBING IS HIGH TEMPERATURE.

ADVANCED PRINT
DATED 04/06/09

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KAUFFMAN ENGINEERING, INC.

TOLERANCES EXCEPT AS NOTED	CUSTOMER: COACHMEN-ARBOC	CUSTOMER PART NUMBER: 1173312	
UNITS: NONE	THIRD ANGLE PROJECTION	DO NOT SCALE DRAWING	
DECIMAL: ±	MATERIAL	SCALE: NONE	DRAWN BY: B. HILL / APPROVED BY
FRACTIONAL: ±	TITLE: BUS RR CAP		
ANGULAR: ±	FILE NAME: X-0685	DATE: 03/13/09	DRAWING NUMBER: X-0685 / REV: A

REV.	DATE	DESCRIPTION	DWN.
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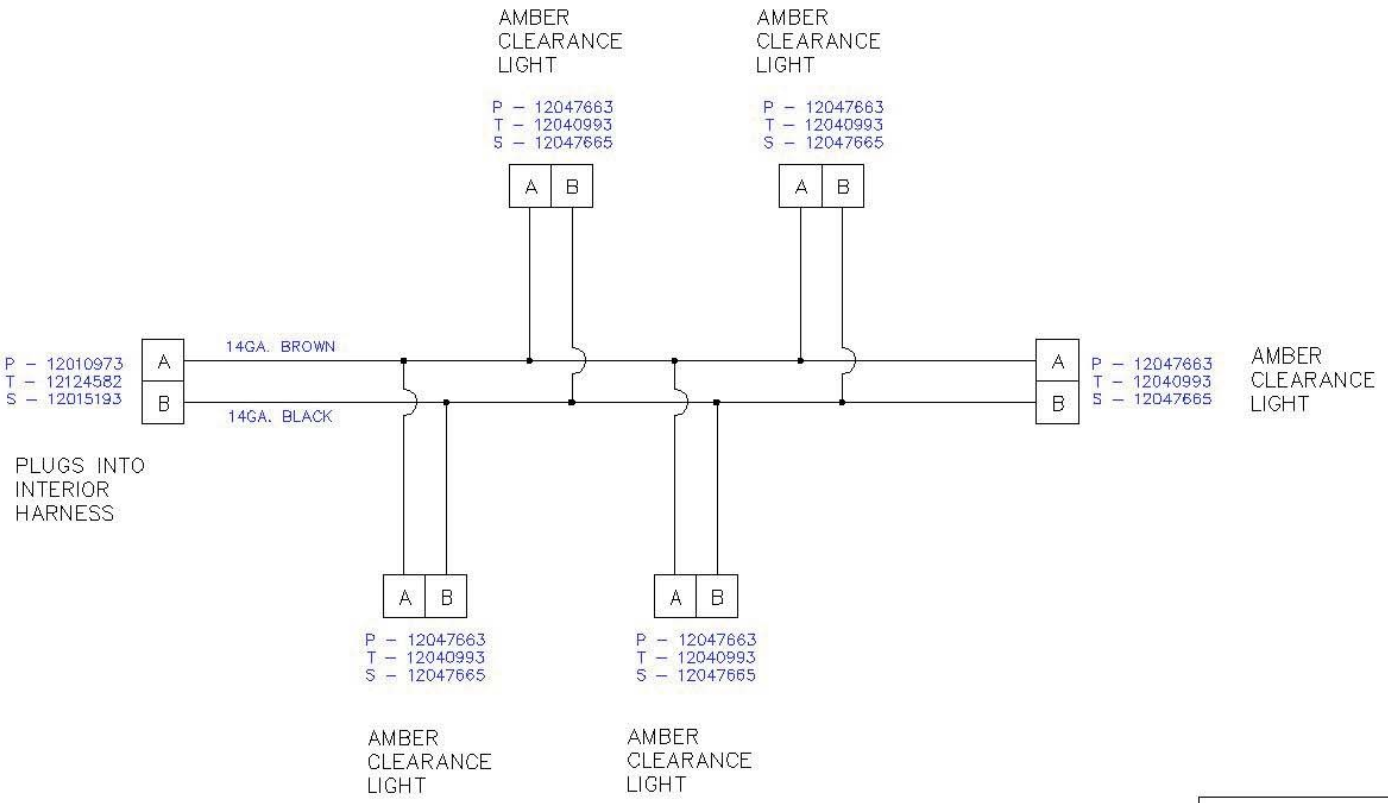

NOTES: 1) ALL WIRE IS XLINK.
2) ALL TUBING IS HIGH TEMPERATURE.

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DATED 03/10/09

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KAUFFMAN ENGINEERING, INC.

TOLERANCES EXCEPT AS NOTED	CUSTOMER: COACHMEN–ARBOC		CUSTOMER PART NUMBER: 1173313	
UNITS: NONE	THIRD ANGLE PROJECTION		DO NOT SCALE DRAWING	
DECIMAL: ±	MATERIAL	SCALE: NONE	DRAWN BY: B. HILL	
FRACTIONAL: ±			APPROVED BY	
ANGULAR: ±	TITLE: BUS FR CAP			
	FILE NAME: X–0684	DATE: 03/10/09	DRAWING NUMBER: X–0684	REV.: –

CI

CIL-SER

L-SER

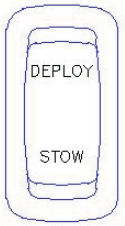
'NNNN A' = ACTUATOR # AND BODY LETTER ×

NO LAMP -

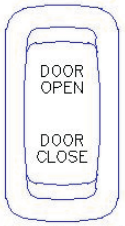
M LH1-01 SWITCH BLANK

AMBER LAMPED - (ARBOC PART #)

A	L11D1ENN1	SPST	ON/OFF W/DEP IND
F	L21D1CNN1	DPST	ON/OFF W/INDEP. IND
E	L14D1ANO1	SPDT	ON/ON
I	L11D1ANO1	SPST	ON/OFF
K	L26D1CNN1	DPDT	ON/OFF/ON W/INDEP. IND
O	L28D1CNN1	DPDT	(ON)/OFF/(ON) W/INDEP. IND
V	L18D1XNN1	SPDT	(ON)OFF(ON) FULL INDEPENT IND.



5013 D
CI09020
(1200571)



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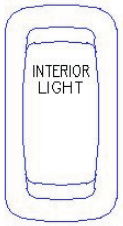

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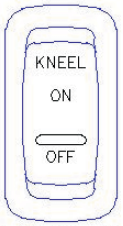

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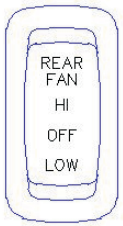

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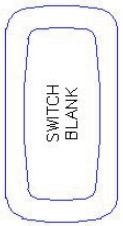
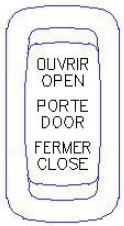


M



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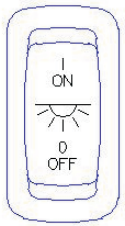

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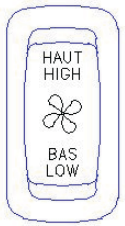
CI09031
(1203655)



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1297 F
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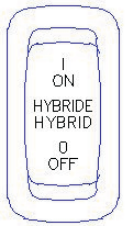
(1188039)



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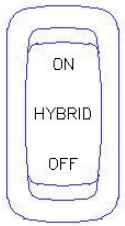

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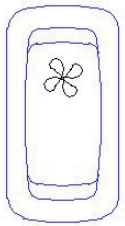

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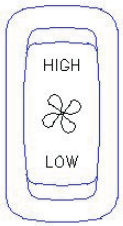

1302 K
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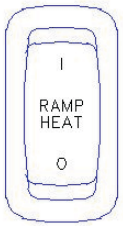
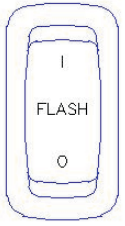
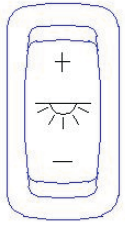
5038 E
CI09022
(1203657)



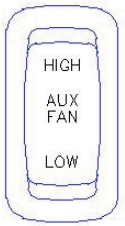
5039 I
CI09026
(1200675)



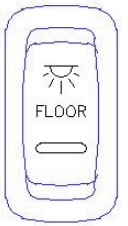
5050 I
CI09034
(1201270)



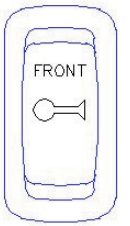
5055 V
CI09038
(1201639)



5056 K
CI09039
(1201748)



5104 A
CI09041
(1203656)



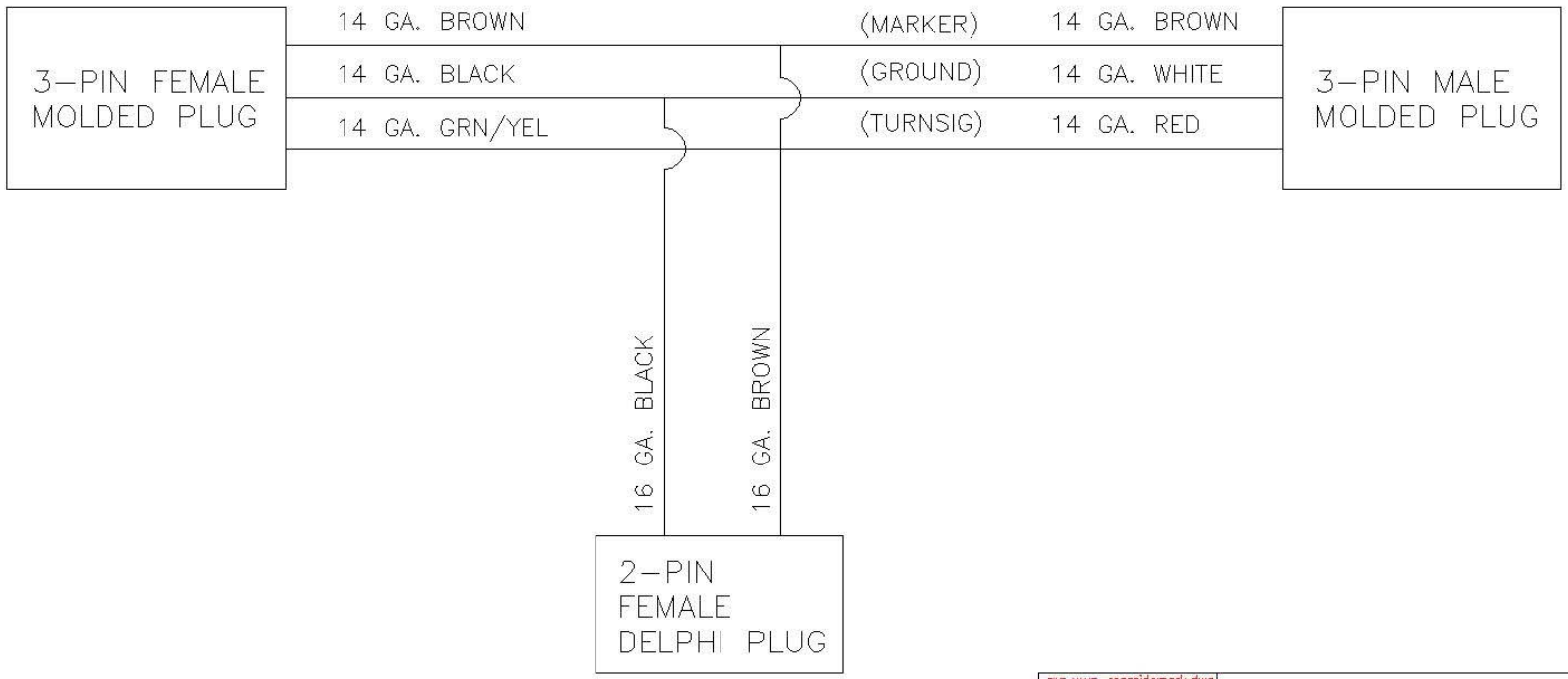
5105 A
CI09042
(1202749)

Cust PN#		CUST.	Coachmen Industries	DWG NAME	CIL-SER
Derived		PART #	CIL-SER	DWG BY	Jonathan
Last Rev	8-10-09 Added CI09042 9004 to A	DESCR.	Coachmen L-Series Switches		

DATE 3-11-2008

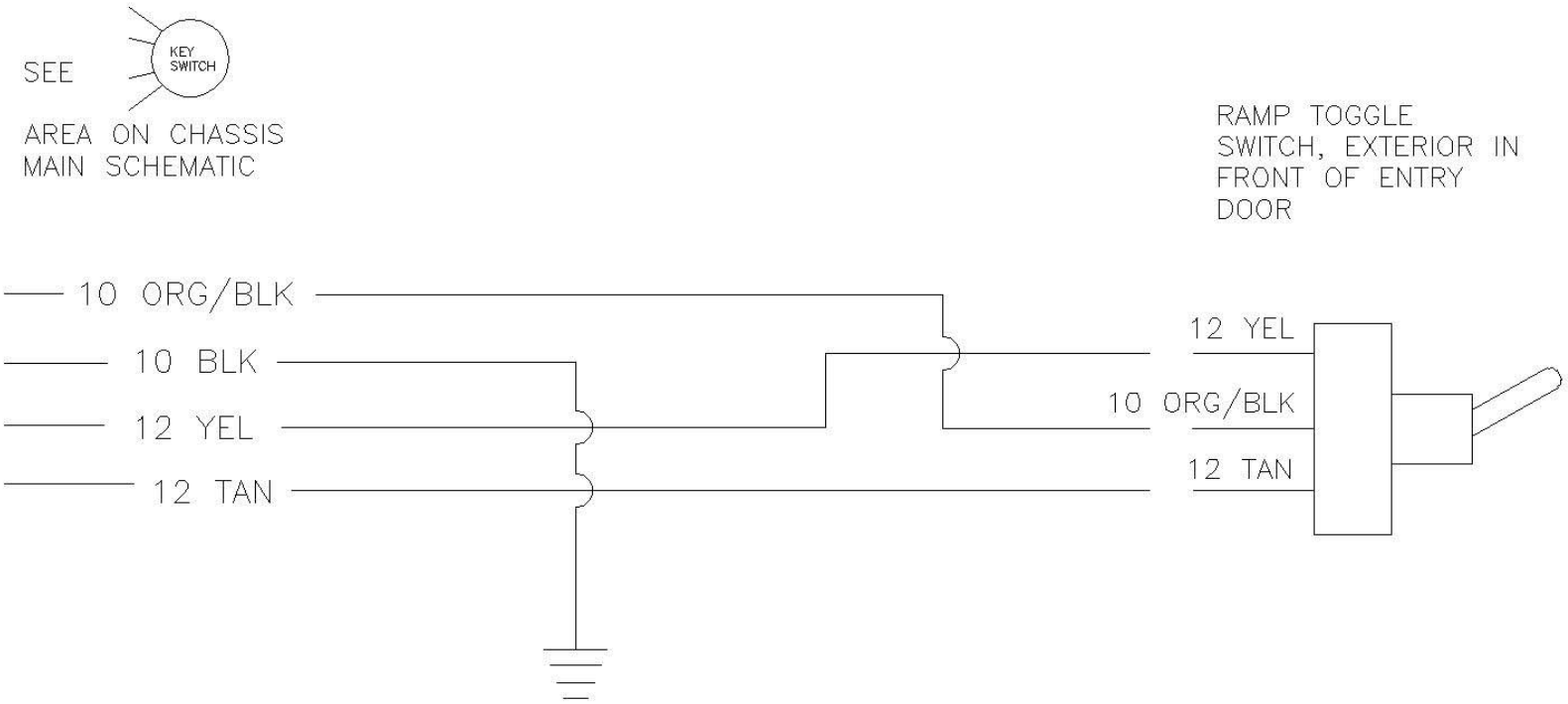
POSITRON
4614 WYLAND DR. PHN (219) 295-8777
ELKHART, IN 46516 FAX (219) 293-1872

REAR CAP, RED SIDEMARKER, ROADSIDE & CURBSIDE

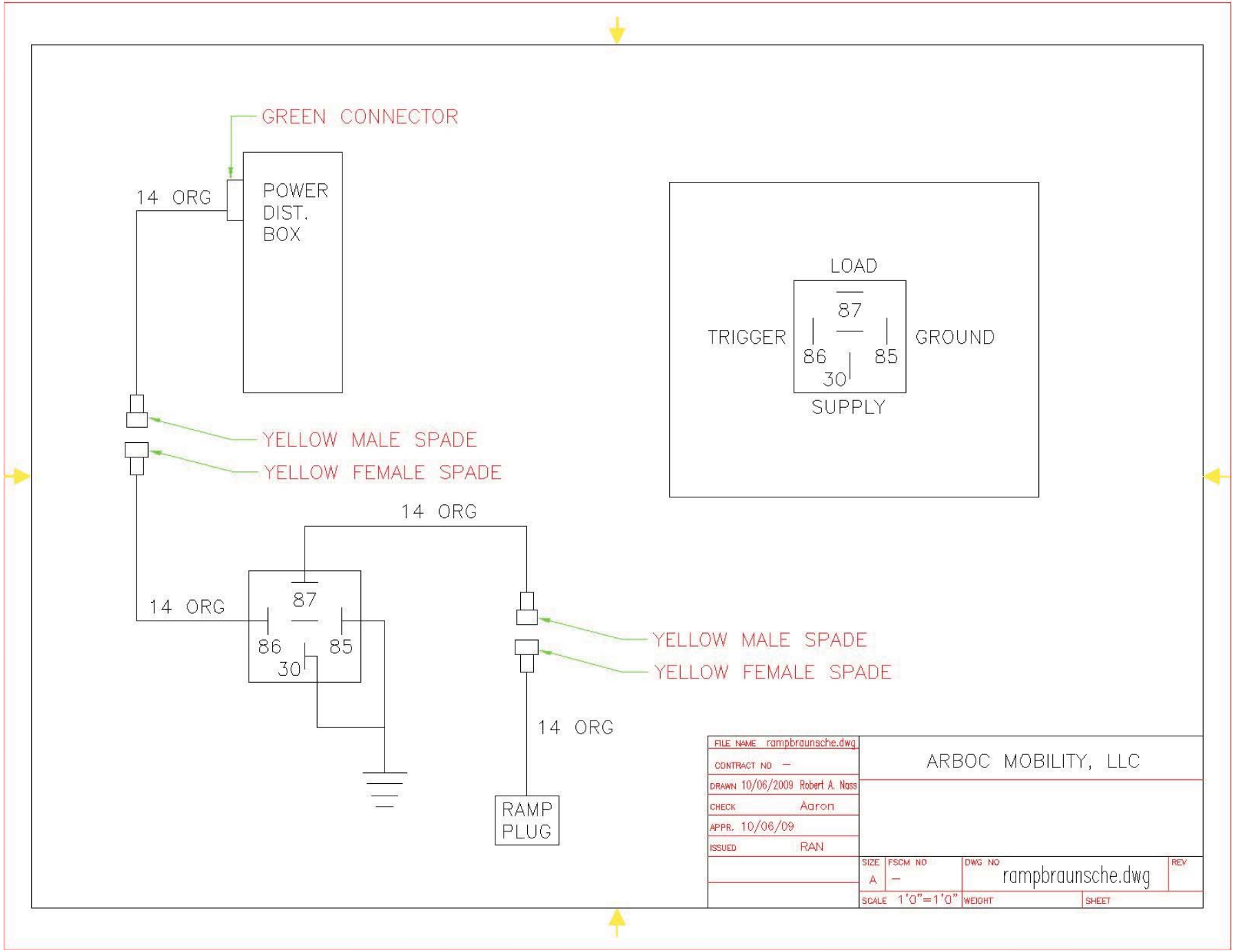


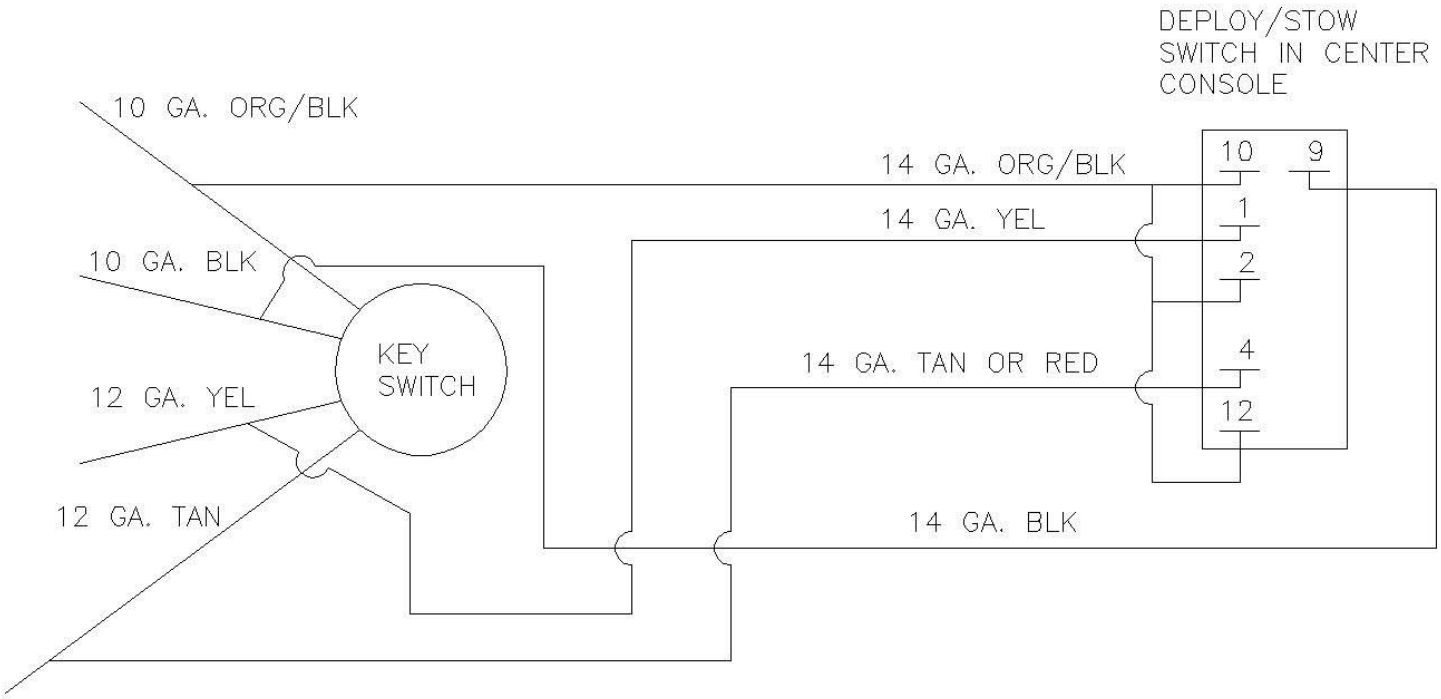
RED SIDEMARKER

FILE NAME rearsidemark.dwg	ARBOC MOBILITY, LLC
CONTRACT NO –	
DRAWN 10/18/2009 Robert A. Nass	
CHECK Aaron	
APPR. 10/18/09	
ISSUED RAN	
SIZE A / FSCM NO – / DWG NO rearsidemark.dwg / REV	
SCALE 1"0"=1"0" / WEIGHT / SHEET	



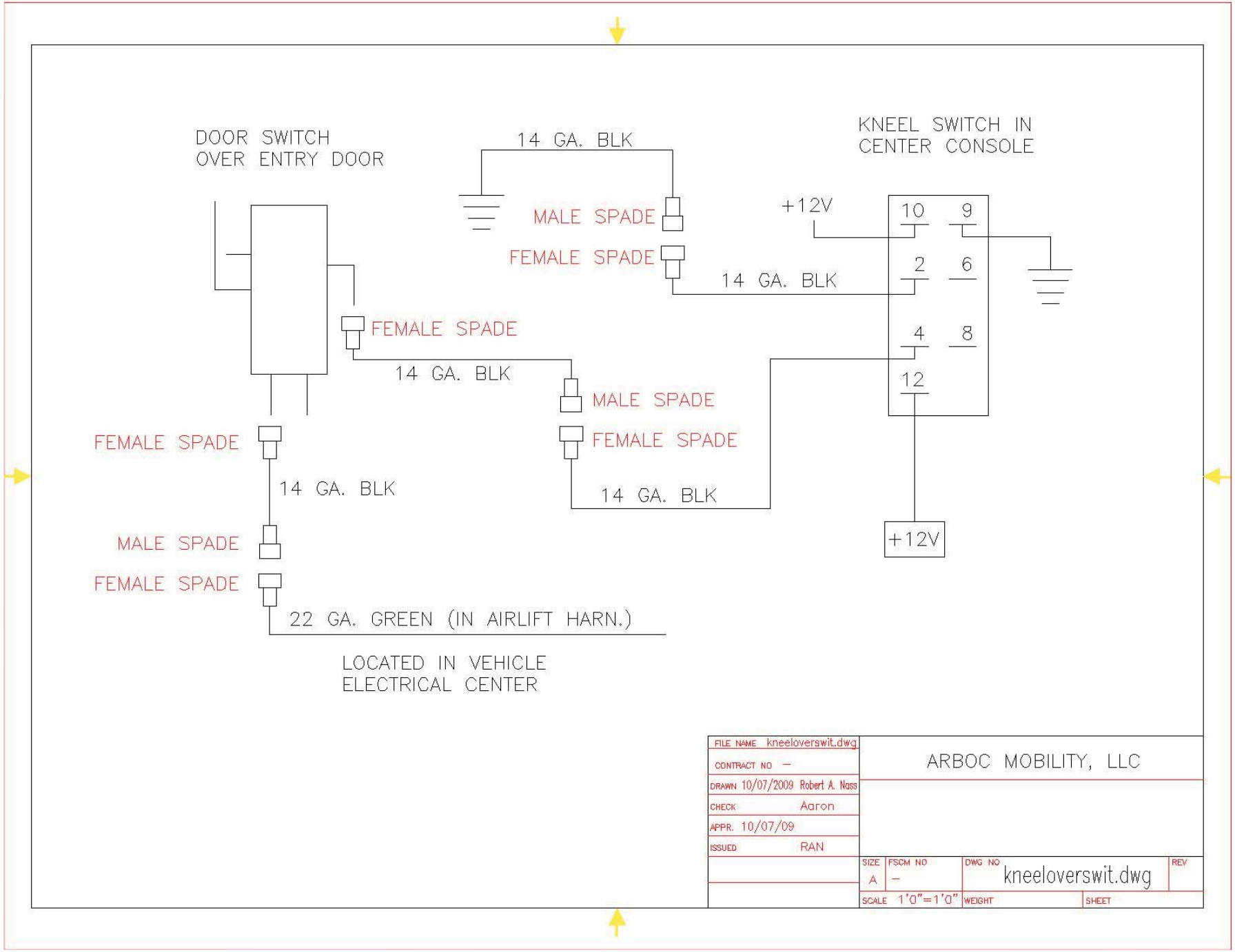
FILE NAME ramptoggle.dwg	ARBOC MOBILITY, LLC		
CONTRACT NO –			
DRAWN 10/29/2009 Robert A. Nass			
CHECK Aaron			
APPR. 10/29/09			
ISSUED RAN			
	SIZE A	FSCM NO –	DWG NO ramptoggle.dwg REV
	SCALE 1'0"=1'0"	WEIGHT	SHEET


GREEN CONNECTOR
14 ORG
POWER
DIST.
BOX
YELLOW MALE SPADE
YELLOW FEMALE SPADE
14 ORG
14 ORG
87
86
85
30
YELLOW MALE SPADE
YELLOW FEMALE SPADE
14 ORG
RAMP
PLUG
LOAD
87
TRIGGER
GROUND
86
85
30
SUPPLY
FILE NAME rampbraunsche.dwg
CONTRACT NO –
DRAWN 10/06/2009 Robert A. Nass
CHECK Aaron
APPR. 10/06/09
ISSUED RAN
ARBOC MOBILITY, LLC
SIZE A
FSCM NO –
DWG NO rampbraunsche.dwg
REV
SCALE 1'0"=1'0"
WEIGHT
SHEET

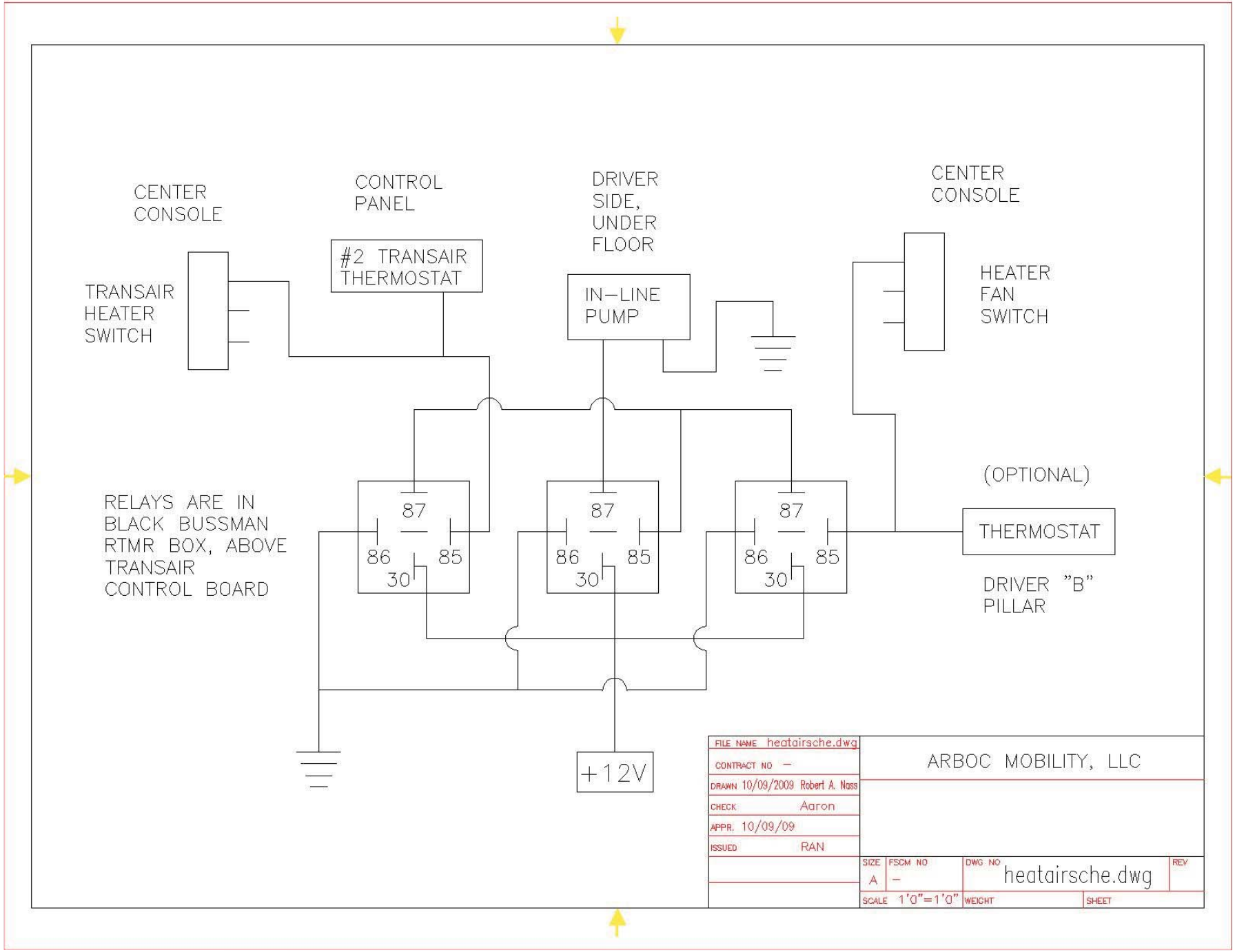


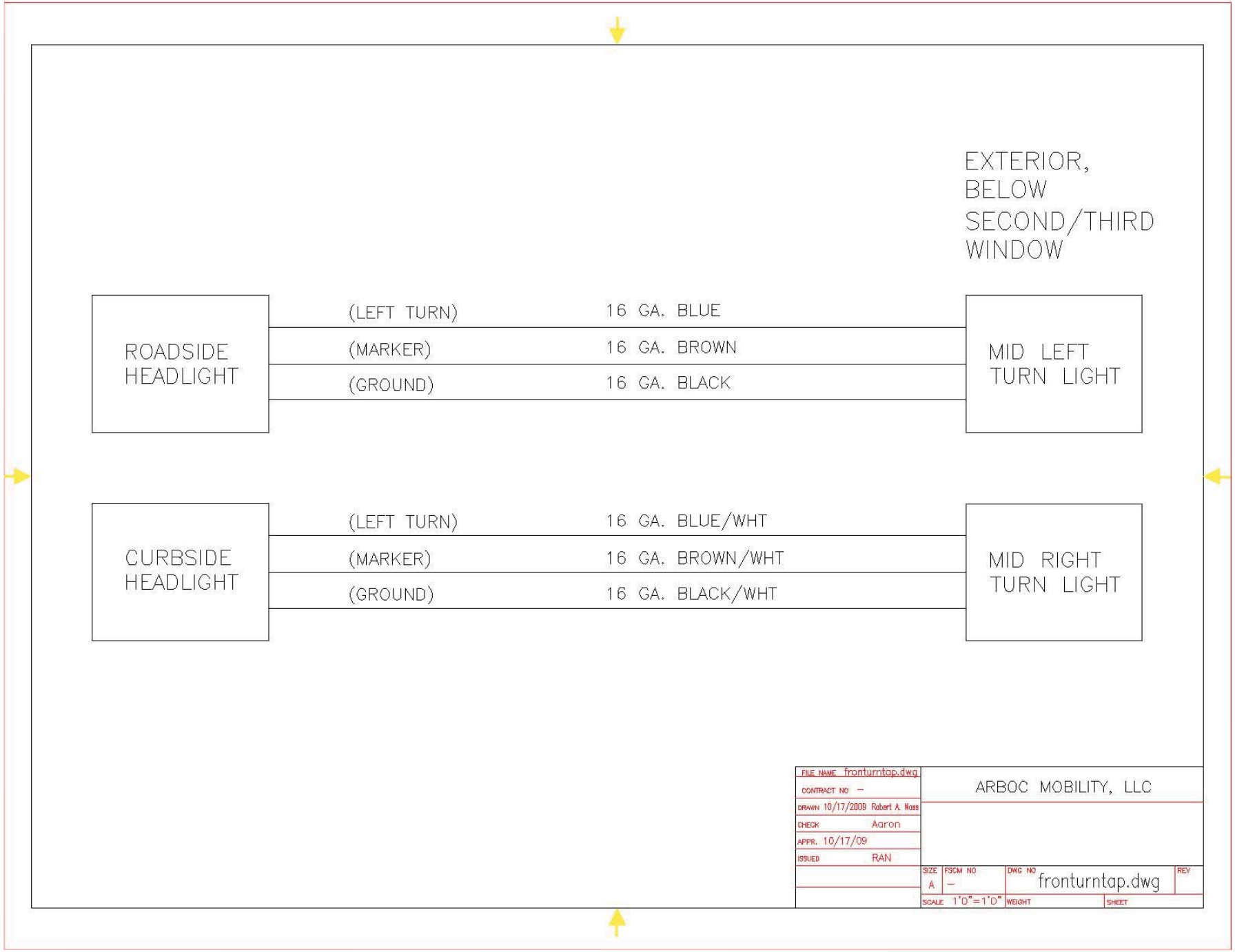
FILE NAME rampactva.dwg	ARBOC MOBILITY, LLC
CONTRACT NO –	
DRAWN 10/16/2009 Robert A. Nass	
CHECK Aaron	
APPR. 10/16/09	
ISSUED RAN	

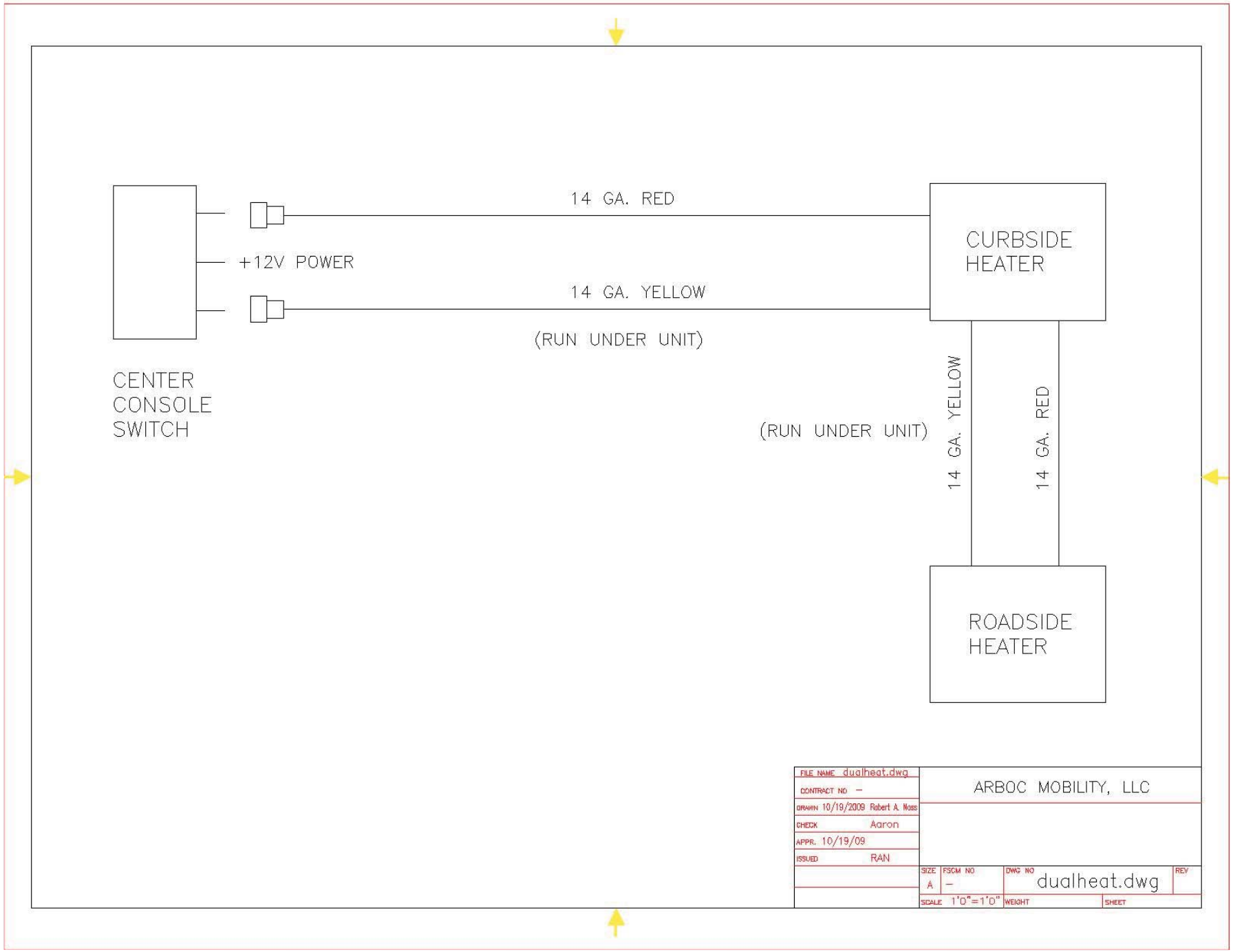
SIZE	FSCM NO	DWG NO	REV
A	–	rampactva.dwg	
SCALE 1'0"=1'0"	WEIGHT	SHEET	

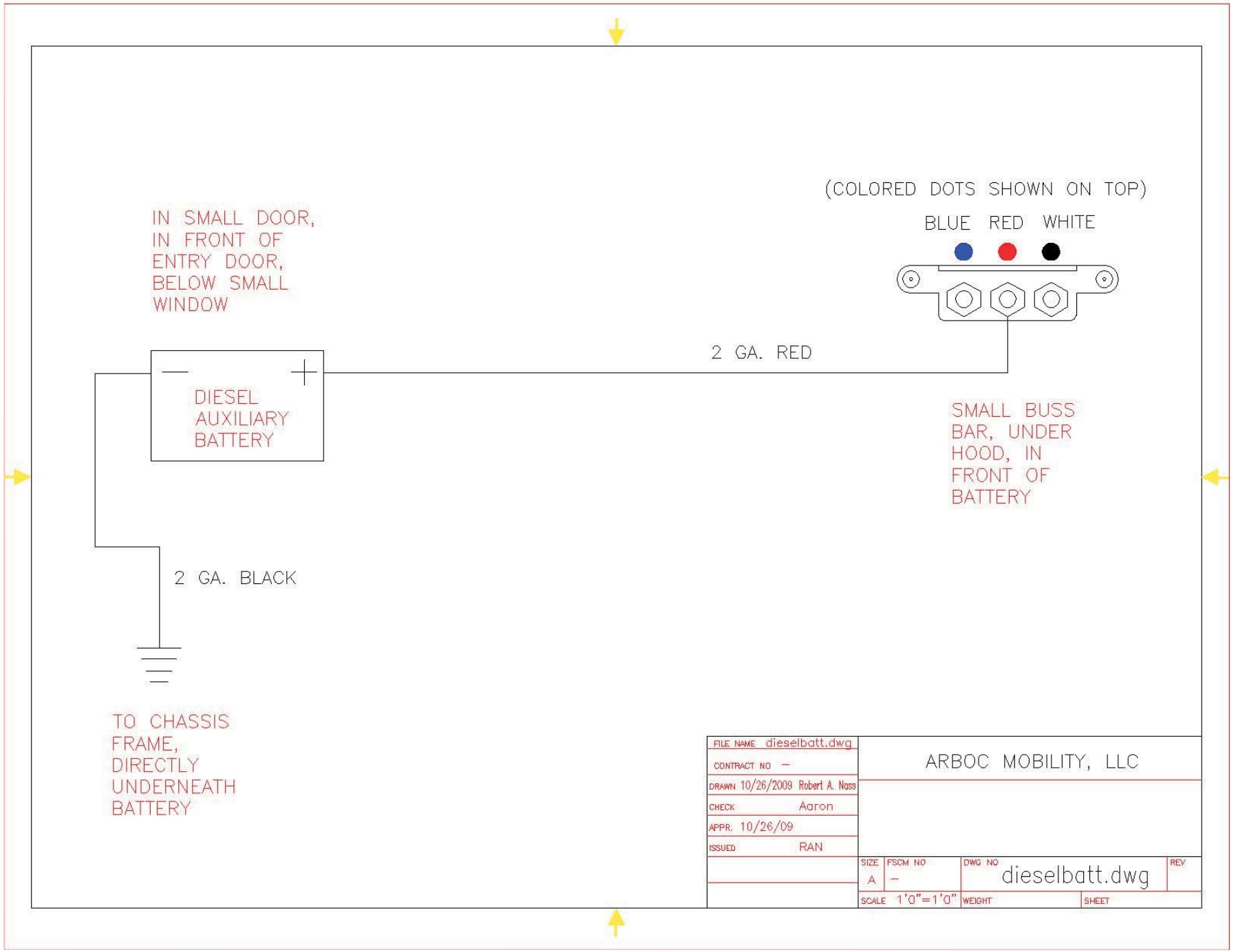


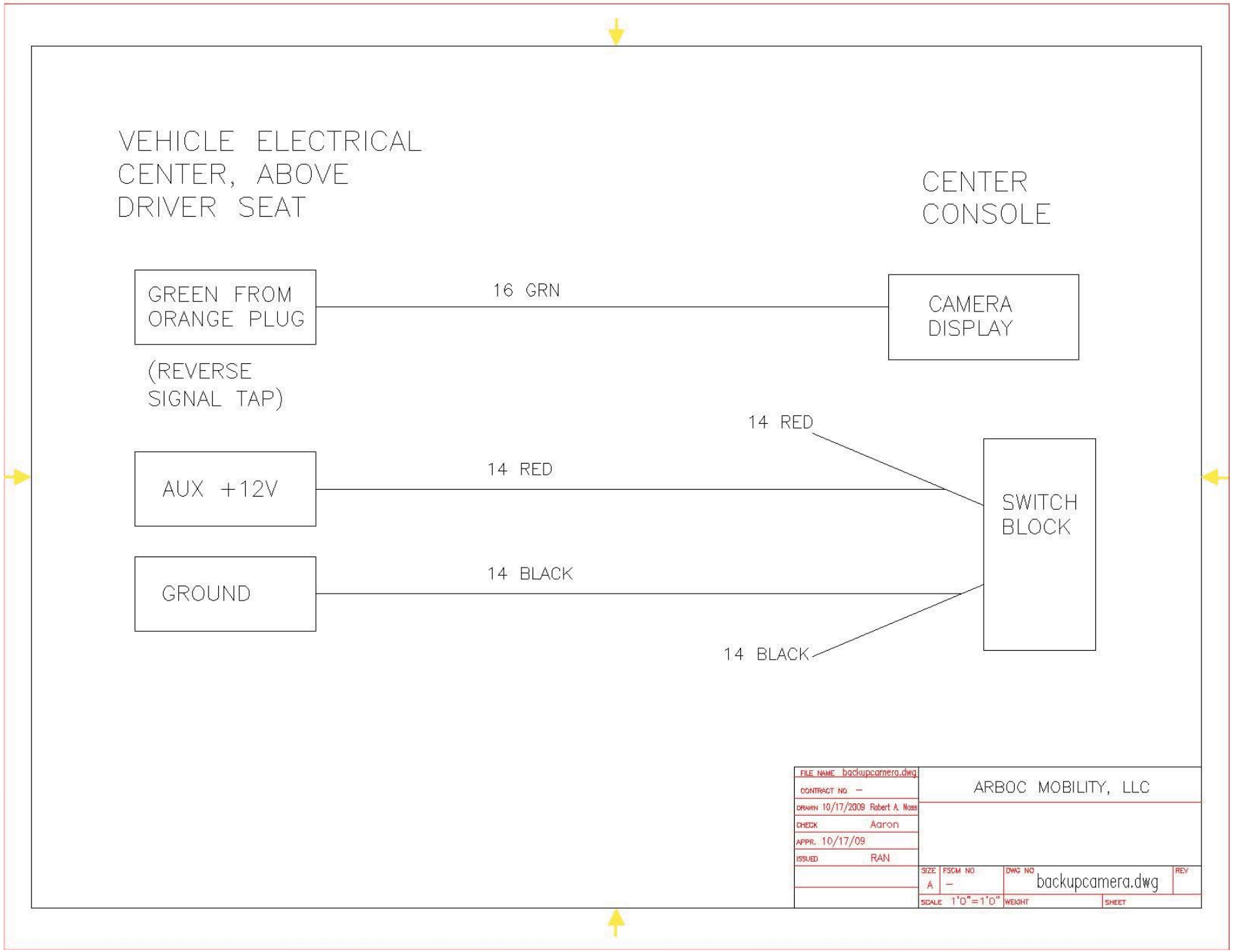
FILE NAME kneeloverswit.dwg	ARBOC MOBILITY, LLC			
CONTRACT NO –				
DRAWN 10/07/2009 Robert A. Nass				
CHECK Aaron				
APPR. 10/07/09				
ISSUED RAN				
	SIZE A	FSCM NO –	DWG NO kneeloverswit.dwg	REV
	SCALE 1'0"=1'0"	WEIGHT	SHEET	


CENTER CONSOLE
CONTROL PANEL
DRIVER SIDE, UNDER FLOOR
CENTER CONSOLE
TRANSAIR HEATER SWITCH
#2 TRANSAIR THERMOSTAT
IN-LINE PUMP
HEATER FAN SWITCH
RELAYS ARE IN BLACK BUSSMAN RTMR BOX, ABOVE TRANSAIR CONTROL BOARD
87
86
85
30
(OPTIONAL)
THERMOSTAT
DRIVER "B" PILLAR
+12V
FILE NAME heatairsche.dwg
CONTRACT NO -
DRAWN 10/09/2009 Robert A. Nass
CHECK Aaron
APPR. 10/09/09
ISSUED RAN
ARBOC MOBILITY, LLC
SIZE A
FSCM NO -
DWG NO heatairsche.dwg
REV
SCALE 1'0"=1'0"
WEIGHT
SHEET


EXTERIOR,
BELOW
SECOND/THIRD
WINDOW
ROADSIDE
HEADLIGHT
(LEFT TURN)
16 GA. BLUE
(MARKER)
16 GA. BROWN
(GROUND)
16 GA. BLACK
MID LEFT
TURN LIGHT
CURBSIDE
HEADLIGHT
(LEFT TURN)
16 GA. BLUE/WHT
(MARKER)
16 GA. BROWN/WHT
(GROUND)
16 GA. BLACK/WHT
MID RIGHT
TURN LIGHT
FILE NAME fronturntap.dwg
CONTRACT NO –
DRAWN 10/17/2009 Robert A. Nass
CHECK Aaron
APPR. 10/17/09
ISSUED RAN
ARBOC MOBILITY, LLC
SIZE A
FSCM NO –
DWG NO fronturntap.dwg
REV
SCALE 1"0"=1"0"
WEIGHT
SHEET


14 GA. RED
+12V POWER
14 GA. YELLOW
(RUN UNDER UNIT)
CENTER
CONSOLE
SWITCH
CURBSIDE
HEATER
(RUN UNDER UNIT)
14 GA. YELLOW
14 GA. RED
ROADSIDE
HEATER
FILE NAME dualheat.dwg
CONTRACT NO –
DRAWN 10/19/2009 Robert A. Nass
CHECK Aaron
APPR. 10/19/09
ISSUED RAN
ARBOC MOBILITY, LLC
SIZE A
FSCM NO –
DWG NO dualheat.dwg
REV
SCALE 1"0"=1"0"
WEIGHT
SHEET


(COLORED DOTS SHOWN ON TOP)
BLUE RED WHITE
IN SMALL DOOR, IN FRONT OF ENTRY DOOR, BELOW SMALL WINDOW
2 GA. RED
DIESEL AUXILIARY BATTERY
SMALL BUSS BAR, UNDER HOOD, IN FRONT OF BATTERY
2 GA. BLACK
TO CHASSIS FRAME, DIRECTLY UNDERNEATH BATTERY
FILE NAME dieselbatt.dwg
CONTRACT NO –
DRAWN 10/26/2009 Robert A. Nass
CHECK Aaron
APPR. 10/26/09
ISSUED RAN
ARBOC MOBILITY, LLC
SIZE A
FSCM NO –
DWG NO dieselbatt.dwg
REV
SCALE 1'0"=1'0"
WEIGHT
SHEET


VEHICLE ELECTRICAL CENTER, ABOVE DRIVER SEAT
CENTER CONSOLE
GREEN FROM ORANGE PLUG
16 GRN
CAMERA DISPLAY
(REVERSE SIGNAL TAP)
14 RED
AUX +12V
14 RED
SWITCH BLOCK
GROUND
14 BLACK
14 BLACK
FILE NAME backupcamera.dwg
CONTRACT NO –
DRAWN 10/17/2009 Robert A. Nass
CHECK Aaron
APPR. 10/17/09
ISSUED RAN
ARBOC MOBILITY, LLC
SIZE A
FSCM NO –
DWG NO backupcamera.dwg
REV
SCALE 1"0"=1"0"
WEIGHT
SHEET

PART #	BUSS1457-7	SHEET	6	OF	18
CUST	Kauffman Engineering				
TITLE	COMPONENT ORIENTATION / LABEL			PC	N

REV	REVISIONS	DATE	APPR
X0	REFER TO SHEET 7	11-26-08	

PROTOTYPE DRAWING

DEVICE PLACEMENT

POSITION	REFERENCE	DEVICE	PART #
D1	R3	12V,35A 5-PIN MICRO	B120-7016
D2	D1	6A DIODE	22903-6VN
D3	R1	12V,35A 5-PIN MICRO	B120-7016
D4	F12	MINI FUSE	ATM-15UNP-N
D5	R2	12V,35A 5-PIN MICRO	B120-7016
D6	F13	MINI FUSE	ATM-15UNP-N
D7	F4	MINI FUSE	ATM-5UNP-N
D8	F9	MINI FUSE	ATM-15UNP-N
D9	R5	12V,35A 5-PIN MICRO	B120-7016
D10	R4	12V,35A 5-PIN MICRO	B120-7016
D11	F1	MINI FUSE	ATM-25UNP-N
D12	F10	MINI FUSE	ATM-15UNP-N
D13	R8	12V,35A 5-PIN MICRO	B120-7016
D14	R10	12V,35A 5-PIN MICRO	B120-7016
D15	R7	12V,35A 5-PIN MICRO	B120-7016
D16	R6	12V,35A 5-PIN MICRO	B120-7016
D17	R9	12V,35A 5-PIN MICRO	B120-7016
D18	F15	MINI FUSE	ATM-15UNP-N
D19	F2	MINI FUSE	ATM-5UNP-N
D20	F11	MINI FUSE	ATM-10UNP-N

DEVICE PLACEMENT

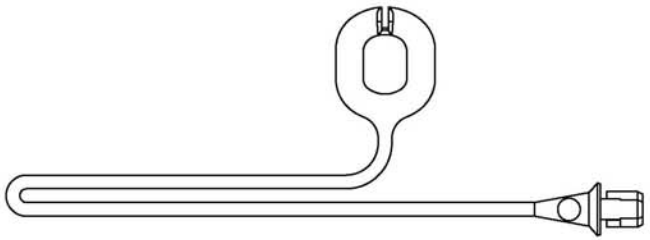
POSITION	REFERENCE	DEVICE	PART #
D21	F7	MINI FUSE	ATM-5UNP-N
D22	F8	MINI FUSE	ATM-10UNP-N
D23	F14	MINI FUSE	ATM-15UNP-N
D24	F5	MINI FUSE	ATM-15UNP-N
D25	F6	MINI FUSE	ATM-15UNP-N
D26	F19	MINI FUSE	ATM-15UNP-N
D27	F16	MINI FUSE	ATM-15UNP-N

SPARE DEVICE PLACEMENT

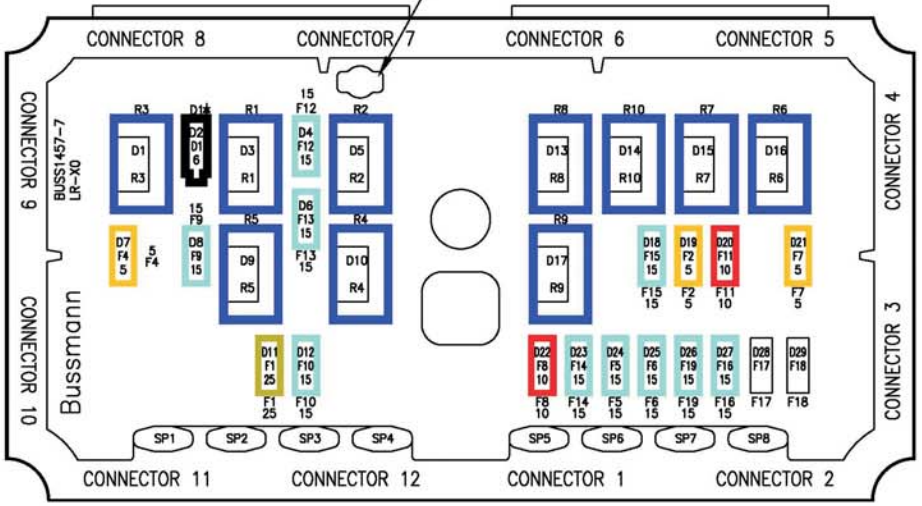
POSITION	REFERENCE	DEVICE	PART #
D28	F17	MINI FUSE	NONE
D29	F18	MINI FUSE	NONE

DEVICE TOTALS

DEVICE	PART #	AMOUNT
12V,35A 5-PIN MICRO	B120-7016	10
6A DIODE	22903-6VN	1
MINI FUSE	ATM-5UNP-N	3
MINI FUSE	ATM-10UNP-N	2
MINI FUSE	ATM-15UNP-N	10
MINI FUSE	ATM-25UNP-N	1



INSTALL COVER TETHER IN SLOT AND TO COVER LATCH



Cooper Bussmann Chicago
175 Hansen Court, Wood Dale, Illinois 60191

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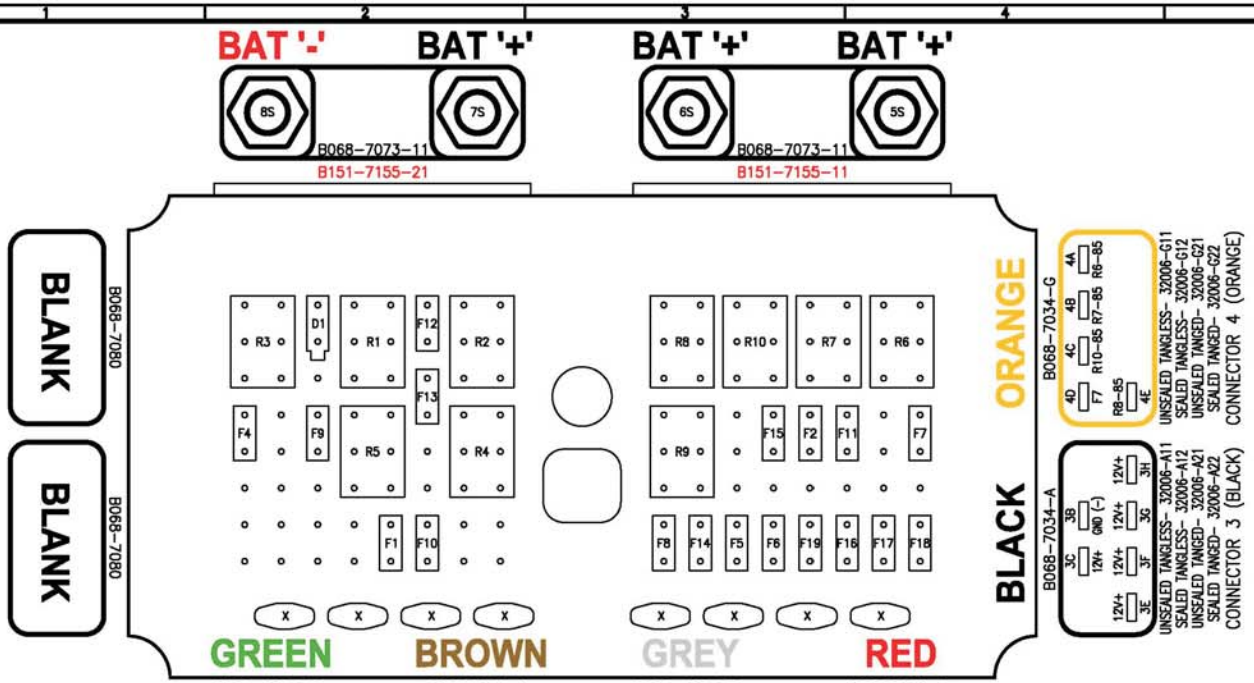
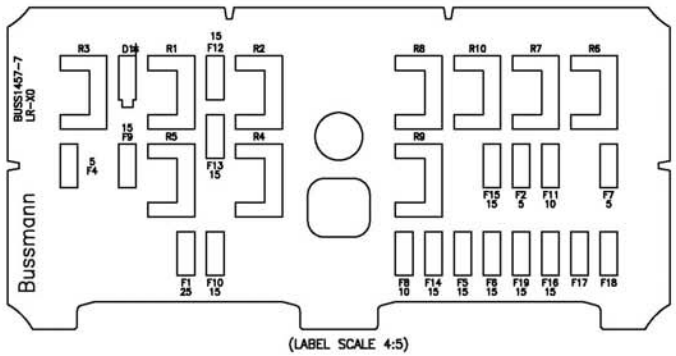
PART # BUSS1457-7		SHEET 5	OF 18
CUST Kauffman Engineering			
TITLE COMPONENT ORIENTATION / LABEL			PC N
REV	REVISIONS	DATE	APPR
X0	REFER TO SHEET 7	11-26-08	

PROTOTYPE DRAWING





(LABEL SCALE 4:5)

NOTES:
1. CONSULT THE FACTORY FOR PART NUMBERS FOR TPA'S (TERMINAL POSITIVE ASSURANCE), CPA'S (CONNECTOR POSITIVE ASSURANCE), RECOMMENDED TERMINALS ETC.

COOPER Cooper Bussmann Chicago
St. Louis, MO 63178

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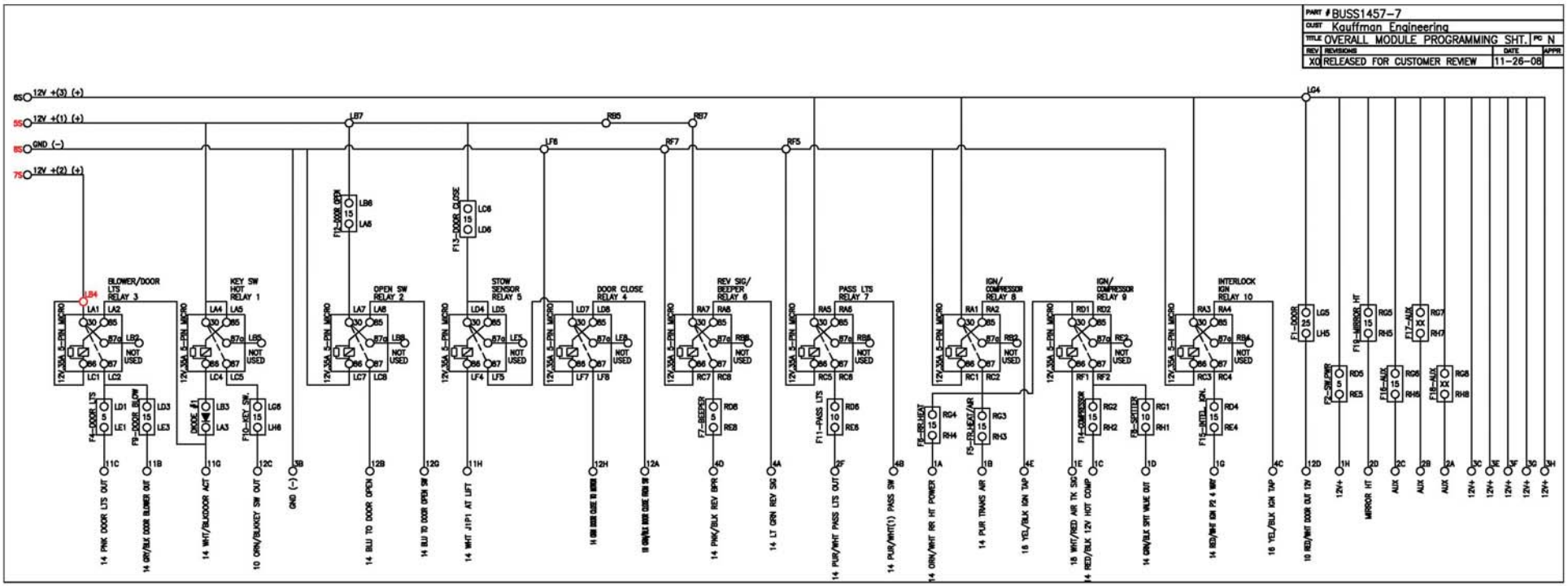
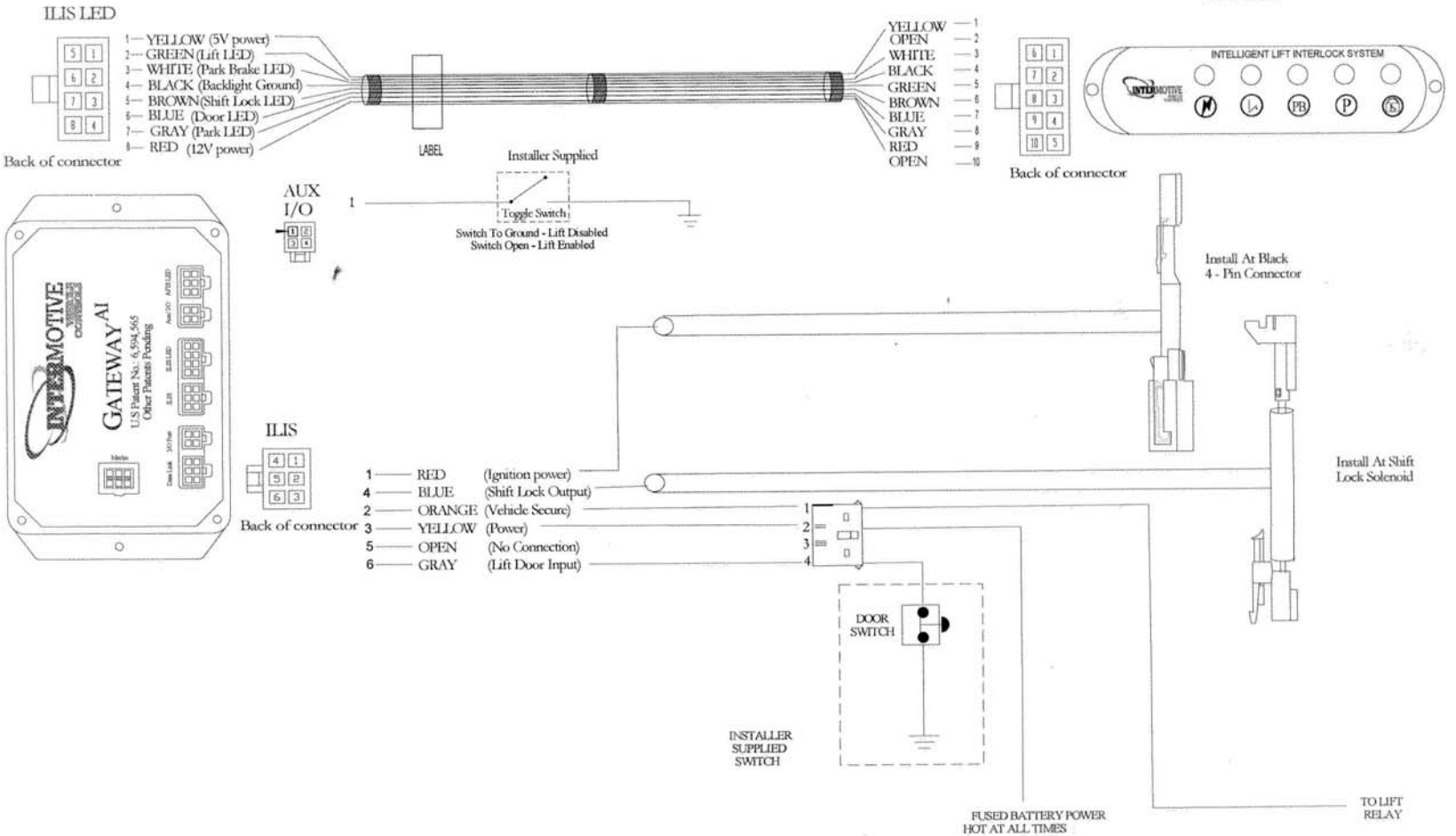

PART # BUSS1457-7
CUST Kauffman Engineering
TITLE OVERALL MODULE PROGRAMMING SHT. PG N
REV REVISIONS DATE APPR
X0 RELEASED FOR CUSTOMER REVIEW 11-26-08
65 12V +(3) (+)
55 12V +(1) (+)
85 GND (-)
75 12V +(2) (+)
BLOWER/DOOR LTS RELAY 3
KEY SW HOT RELAY 1
OPEN SW RELAY 2
STOW SENSOR RELAY 5
DOOR CLOSE RELAY 4
REV SIG/ BEEPER RELAY 6
PASS LTS RELAY 7
IGN/ COMPRESSOR RELAY 8
IGN/ COMPRESSOR RELAY 9
INTERLOCK IGN RELAY 10
12V-30A 5-PIN MICRO
NOT USED
F1-DOOR LTS
F2-DOOR AJAR
F3-DOOR AJAR
F4-KEY SW
F5-DOOR OPEN
F6-DOOR CLOSE
F7-BEEPER
F8-RH HEAT
F9-RH HEAT/AIR
F10-COMPRESSOR
F11-PASS LTS
F12-SPLITTER
F13-INTERLOCK IGN
F1-DOOR
F2-SW PWR
F15-MIRROR HT
F16-AUX
F17-AUX
F18-AUX
14 PNK DOOR LTS OUT
14 GRY/BLK DOOR AJAR OUT
14 WHT/BLK DOOR AJAR
10 ORN/BLK KEY SW OUT
GND (-)
14 BLU TO DOOR OPEN
14 BLU TO DOOR CLOSE
14 WHT J1P1 AT LIFT
14 PNK/BLK KEY SW
14 LT GRN REV SIG
14 PUR/WHT PASS LTS OUT
14 PUR/WHT(1) PASS SW
14 ORN/WHT RR HT POWER
14 PUR TRANS AIR
15 YEL/BLK IGN TAP
15 WHT/RED AIR TK SIG
14 RED/BLK 12V HOT COMP
14 GRN/BLK SPLT VALVE OUT
14 RED/WHT IGN P2 # 8
16 YEL/BLK IGN TAP
10 RED/WHT DOOR OUT 12V
12V+
MIRROR HT
AUX
AUX
AUX
12V+
12V+
12V+
12V+
12V+

Intelligent Lift Interlock System

REVISIONS	
DATE :	CHANGE :



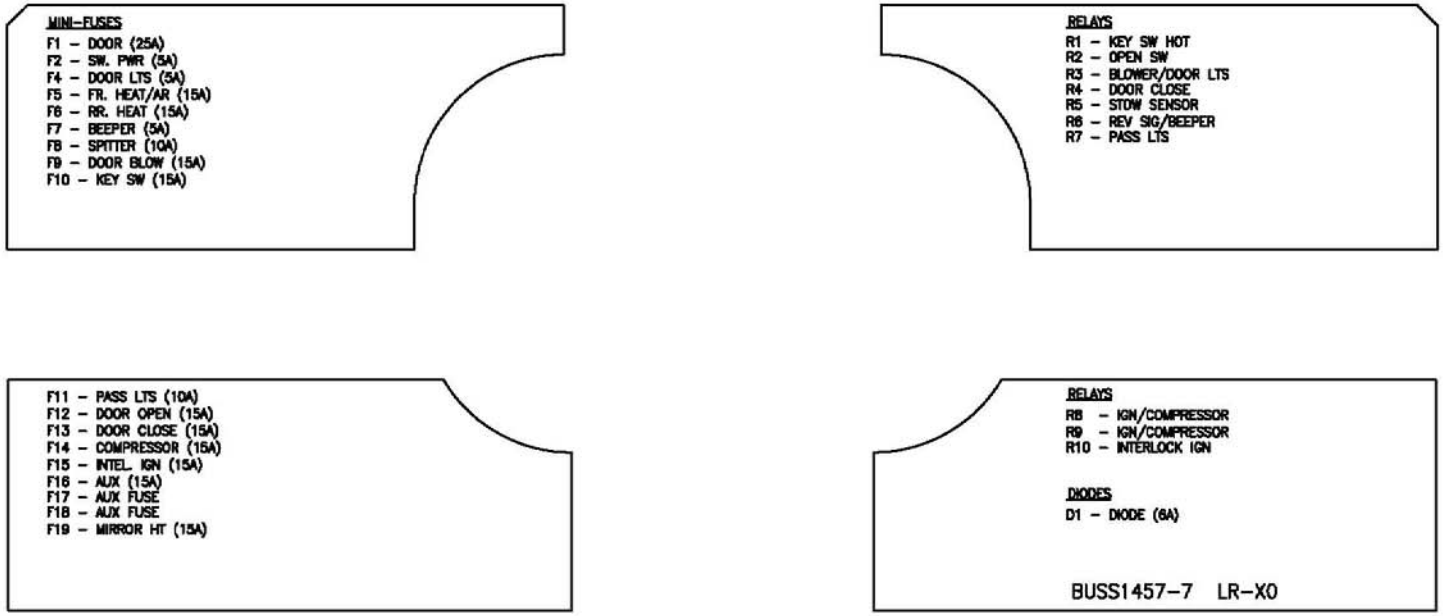
INTERMOTIVE VEHICLE CONTROLS	PRODUCT : GATEWAY AI	DRAWN BY: Bruce Hodge	PART NO: ILIS601H4 - Rev 2	
		DATE DRAWN : 10/23/08	CHECK BY : Keith Thomas	DATE CHECKED : 10/23/08

B171-2XXX-X-RX

└X-PRINT REVISION LEVEL

PART # B171-2XXX-X-RX		SCALE 1 : 1	
CUST Kauffman Engineering			
TITLE DVEC LEXAN INSIDE COVER LABEL			PC N
REV	REVISIONS	DATE	APPR
X0	RELEASE TO PROD. ECN-VUXXXXX XX	11-26-08	

PROTOTYPE DRAWING



NOTES:

1. THIS DRAWING SPECIFIES COMPONENT PLACEMENT AND GRAPHICS. REFER TO B152-7118-XXX-X FOR MATERIAL SPECIFICATIONS AND DIMENSIONING.
2. CROSSHATCHING REPRESENTS COMPONENT CUTOUTS. REFER TO B152-7086-XXX-X FOR COMPONENT DIMENSIONING.
3. LABEL TO HAVE A BLACK BACKGROUND WITH WHITE LETTERING.

COOPER Cooper Bussmann Chicago
St. Louis, MO 63178

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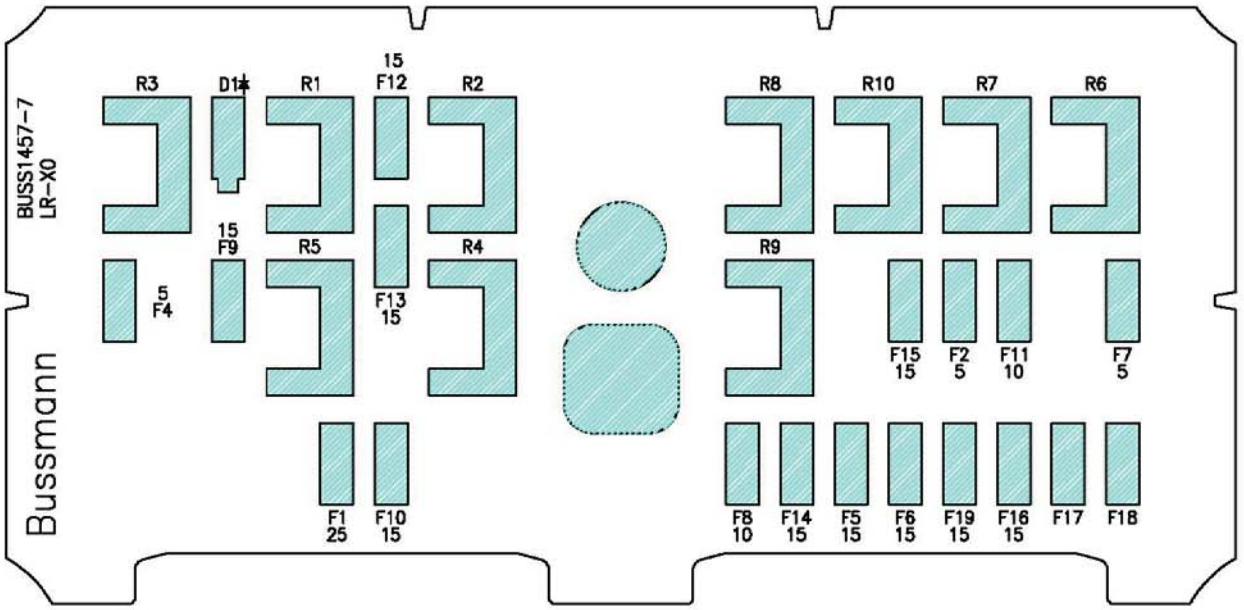
B170-2XXX-X-RX

└X-PRINT REVISION LEVEL

PART # B170-2XXX-X-RX			SCALE 1 : 1
CUST Kauffman Engineering			
TITLE DVEC LEXAN MODULE LABEL			PC N
REV	REVISIONS	DATE	APPR
X0	RELEASE TO PROD. ECN-VUXXXXX XX	11-26-08	

PROTOTYPE DRAWING



NOTES:

1. THIS DRAWING SPECIFIES COMPONENT PLACEMENT AND GRAPHICS. REFER TO B152-7117-XXX-X FOR MATERIAL SPECIFICATIONS AND DIMENSIONING.
2. CROSSHATCHING REPRESENTS COMPONENT CUTOUTS. REFER TO B152-7086-XXX-X FOR COMPONENT DIMENSIONING.
3. LABEL TO HAVE A BLACK BACKGROUND WITH WHITE LETTERING.

COOPER Cooper Bussmann Chicago
St. Louis, MO 63178

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Electrical System Information

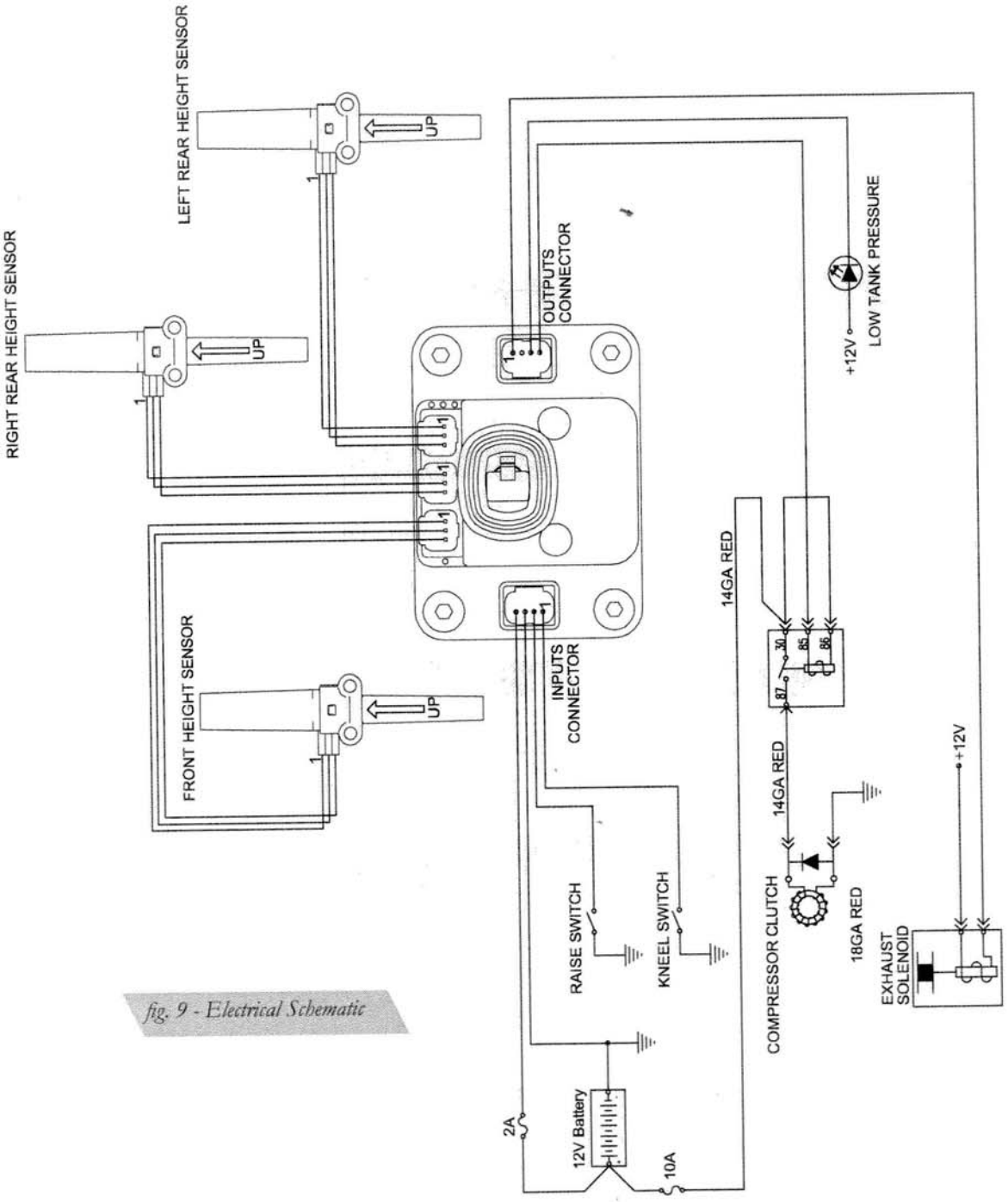


fig. 9 - Electrical Schematic

REAR DOOR
SENSOR

CENTER CONSOLE
RED LED
INDICATOR LIGHT

SWITCHED	18 GA. RED	SWITCHED
GROUND	18 GA. WHITE	GROUND

FILE NAME alarmdoorajar.dwg	ARBOC MOBILITY, LLC			
CONTRACT NO –				
DRAWN 10/16/2009 Robert A. Nass				
CHECK Aaron				
APPR. 10/15/09				
ISSUED RAN				
	SIZE A	FSCM NO –	DWG NO alarmdoorajar.dwg	REV
	SCALE 1'0"=1'0"	WEIGHT	SHEET	

ARBOC MOBILITY BUS LIGHTS

	MFG. PART #	MFG.	ARBOC PART #
TAILLIGHT	STL-43RB	OPTRONICS	1085462
REVERSE LIGHT	BUL-53CB	OPTRONICS	1196083
THIRD BRAKE LIGHT	STL-78RB	OPTRONICS	1169742
AMBER CLEARANCE LIGHT	MCL-66AB	OPTRONICS	1172600
RED CLEARANCE LIGHT	MCL-66RB	OPTRONICS	1172601
LICENSE PLATE LIGHT	LPL-31CB	OPTRONICS	1169737
3" RAMP LIGHT	9895C-55-88AC	GLO-BRITE	1174567
8" OVAL LIGHT	9860-88	GLO-BRITE	1169747
AMBER SIDE TURNSIGNAL	125Y88	GLO-BRITE	1201157
RED SIDEMARKER	MCL-11RKB	UNI-LITE	1199840

SYSTEM 6.00 ELECTRICAL

SYSTEM 6.00-.01 HARNESS

ITEM #	PART #	DESCRIPTION	TORQUE LB-FT
	1200696	WIRE HARNESS, 12V CHASSIS	
	1172904	WIRE HARNESS, 12V CHASSIS 159"	
	1200696	WIRE HARNESS, 12V CHASSIS 159"	
	1173314	HARNESS EXTENSION, 12V CHASSIS 159"	
	1192203	HARNESS EXTENSION, 12V CHASSIS 191/210"	
	1185250	WIRE HARNESS, AUX BATTERY	
	1198726	WIRE HARNESS, BRAUN RAMP	
	1188062	WIRE HARNESS, CHIME STOP	
	1184627	WIRE HARNESS, DESTINATION SIGN	
	1188061	WIRE HARNESS, DIESEL FUEL TANK	
	1191248	WIRE HARNESS, 12V DIESEL FUEL	
	1173266	WIRE HARNESS, 12V FUEL TANK	
	1190158	WIRE HARNESS, DOOR SW OVERLAY	
	1188060	WIRE HARNESS, DUAL BATTERY	
	1174858	WIRE HARNESS, EXTN AIR BAG	
	1188459	WIRE HARNESS, EXTN MAIN 26/28	
	1173313	WIRE HARNESS, FRONT CAP	
	1188640	WIRE HARNESS, GATEWAY DATA REV	
	1190651	WIRE HARNESS, HADLEY PROOF	
	1191603	WIRE HARNESS, IN-LINE WATER	
	1191611	WIRE HARNESS, INVERTER 1000	
	1200890	WIRE HARNESS, MAIN INT 159"	
	1172905	WIRE HARNESS, MAIN 12V	
	1191606	WIRE HARNESS, MIRROR CAMERAS	
	1191607	WIRE HARNESS, MIRROR CAMERAS W/TURN SIG	
	1191605	WIRE HARNESS, MIRROR W/TURN SIGNALS	
	1185381	WIRE HARNESS, OUTSIDE KEY	
	1172903	WIRE HARNESS, PC BOARD PIGTAIL	

	1200976	WIRE HARNESS, PLUG & PLAY TOP FLASHING LIGHT	
	1177127	WIRE HARNESS, POWER RAMP	
	1200891	WIRE HARNESS, REAR CAP BUSSMAN	
	1173312	WIRE HARNESS, REAR CAP SOM	
	1191612	WIRE HARNESS, REAR LUGGAGE	
	1190656	WIRE HARNESS, RICON PAMP	
	1185722	WIRE HARNESS, STARTER PIGTAIL	
	1185724	WIRE HARNESS, TV LAYIN SOM	
	1200570	WIRE HARNESS, UNDERHOOD SWITCH	
	1200716	HARNESS, GM UNDERHOOD LIGHT	
	1200965	HARNESS, HIGH OUTPU ALTERNATOR	
	1200717	HARNESS, UNDERHOOD LIGHT	
	1200976	WIRE HARNESS, PLUG & PLAY W/SWITCH TOP REAR FLASHING LIGHT	

SYSTEM 06.00 ELECTRICAL

SYSTEM 06.00-02 SWITCHES

ITEM #	PART #	DESCRIPTION	TORQUE LB-FT
	1169812	SWITCH, AIR PRESSURE 120-150	
	1200960	SWITCH, DOOR JAMB NC, RUBBER	
	1200578	SWITCH, HYBRID ON/OFF	
	1179530	SWITCH, IGITION ROTARY COLE	
	1185125	SWITCH, KNEELING OVERRIDE SOM	
	1188037	SWITCH, L-SERIES REAR FAN	
	1200571	SWITCH, L-SERIES DEPLOY STOW ON/OFF	
	1188043	SWITCH, L-SERIES FAN SYMBOL ON/OFF	
	1200675	SWITCH, L-SERIES RAMP HEAT	
	1186395	SWITCH, MICRO SNAP ACTION	
	1200699	SWITCH, MOMENTARY UNDERHOOD	
	1200270	SWITCH, TOGGLE WEATHERPROOF SPDT	
	1200567	SWITCH, UNDERHOOD SAFETY	
	1185254	SWITCH, 1/2" SQUARE GREEN	
	1126142	SWITCH, 12V 300AMP ROTARY SG	
	1185125	SWITCH, KNEELING OVERRIDE SOM	
	1191659	CONNECTION, MAGNETIC REAR DOOR AJAR ALARM	

SYSTEM 06.00 ELECTRICAL

SYSTEM 06.00-03 ALTERNATOR

ITEM #	PART #	DESCRIPTION	TORQUE LB-FT
	1198959	ALTERNATOR, GM C3500 6.0L GAS	
	1200965	HARNESS, HIGH OUTPUT ALTERNATOR	

SYSTEM 06.00 ELECTRICAL

SYSTEM 06.00-04 REMOTE BATTERY JUMP

ITEM #	PART #	DESCRIPTION	TORQUE LB-FT
	1185387	CABLE, BOOSTER PLUG IN ENDS	
	1200499	BATTERY JUMP START	

SYSTEM 06.00 ELECTRICAL

SYSTEM 06.00-05 EXT DOOR TOGGLE SWITCH

ITEM #	PART #	DESCRIPTION	TORQUE LB-FT
	1183668	FUSE, 15AMP W/FUSE HOLDER BL	
	1185381	WIRE HARNESS, OUTSIDE KEY	
	1200270	SWITCH, TOGGLE WEATHERPROOF	
	1200271	BOOT, BLACK TOGGLE SWITCH	
	1200571	SWITCH, L-SERIES DEPLO STOW	

SYSTEM 06.00 ELECTRICAL

SYSTEM 06.00-06 FUSES

ITEM #	PART #	DESCRIPTION	TORQUE LB-FT
	217737	FUSE, 36V 5A ATC	
	205368	FUSE, 36V 10A ATC	
	377902	FUSE, 36V 15A ATC	
	377903	FUSE, 36V 20A ATC	
	377904	FUSE, 36V 25A ATC	
	377905	FUSE, 36V 30A ATC	
	505161	FUSE, 5 AMP ATM(MIMI BLADE)	
	505221	FUSE, 10 AMP MINI FUSE	
	505163	FUSE, 10 AMP MINI FUSE	
	505223	FUSE, 20 AMP MINI FUSE	
	1200870	FUSE, PANEL, BUSSMAN	

SYSTEM 06.00 ELECTRICAL

SYSTEM 06.00-07 BREAKERS

ITEM #	PART #	DESCRIPTION	TORQUE LB-FT
	415271	BREAKER, 100 AMP MANUAL RESET	

HEAT

SYSTEM 7.00 HEATER
SYSTEM 6.00.01

ITEM #	PART #	DESCRIPTION	TORQUE LB-FT
	1200889	HEATER, 60M BTU SLIM LINE	
	1174134	HEATER BOX, 35M BTU GAS	
	1174136	HEATER BOX 65M BTU GAS	
	1200685	CONNECTOR, TEE HTR HOSE 5/8"	
	1200688	CLAMP, HOSE 1/2" TO 1-1/4"	
	1200796	HEATER, AIR ESPAR AIRTRONIC	
	1200797	TIMER KIT, AIR HEATER ESPAR	
	1200798	INSTALLATION KIT, AIR HEATER	
	1200982	HEATER, 65BTU GAS SYSTEM, UNDER SEAT	
	1200986	ELBOW, 60 DEGREE	
	1200987	SPLICE, 5/8" HEATER HOSE	
	1200889	HEATER, 60M BTU SLIM LINE UPRIGHT	
	1169832	PUMP, 10 GPM W/5/8 OUTLETS	
	1191603	WIRE HARNESS, IN-LINE WATER PUMP	

AIR CONDITIONING

5117

EMERGENCY EXIT

SYSTEM 08.00 A/C

SYSTEM 08.00.01 GAS

ITEM #	PART #	DESCRIPTION	TORQUE LB-FT
	BSOM250	70K AIR TA733	
	1193042	EVAPORATOR, A/C TA73 METAL	
	1193044	CONDENSER, A/C SMC3L SKIRT M	
	1193047	WIRING KIT, A/C EC2.5 NO HEA	
	1193048	PIPING KIT, A/C CLIP-LOK SOM	
	1193050	MOUNT KIT, A/C GM 6.0 10 CID	
	1193069	COMPRESSOR, A/C GM 6.0 10 CI	
	1169979	OIL AND FREON, AIR CONDITION	
	1200853	INSTALL, A/C GAS/SKIRT TA733	
	1184794	CHANNEL, CONDENSER ROOF MOUNT	
	1179520	FTG, ELBOW BRASS 1/8-27	
	1186504	PANEL, ABS AIR EXHAUST SMALL	
	1190411	TRIM RING, CONDENSOR 6 X 40	
	BSOM254	75K AIR TA733	
		SAME AS ABOVE EXCEPT FOR	
	1193051	MOUNT KIT, A/C GM 6.0 13 CID	
	1193070	COMPRESSOR, A/C GM 6.0 QP21	
	BSOM258	80K AIR TA733	
	1184794	CHANNEL, CONDENSER ROOF MOUN	
	1179520	FTG, ELBOW BRASS 1/8-27 90 D	
	1193051	MOUNT KIT, A/C GM 6.0 13 CID	
	1193070	COMPRESSOR, A/C GM 6.0 QP21	
	1199974	BEZEL, T77 EVAPORATOR HOSE	
	1199973	BEZEL, T77 EVAPORATOR DUCT	
	1200656	ROTOVENT, 4" BLACK	
	1175964	FILTER, A/C 3/4" X 5" X 29"	
	1186504	PANEL, ABS AIR EXHAUST SMALL	
	1195309	TRIM RING, CONDENSOR 6" X 50	

SYSTEM 08.00 A/C
SYSTEM 08.00.02 DIESEL

ITEM #	PART #	DESCRIPTION	TORQUE LB-FT
	BSOM250D	70K AIR TA733	
	1193042	EVAPORATOR, A/C TA73 METAL	
	1193044	CONDENSER, A/C SMC3L SKIRT M	
	1193047	WIRING KIT, A/C EC2.5 NO HEA	
	1193048	PIPING KIT, A/C CLIP-LOK SOM	
	1193052	MOUNT KIT, A/C GM 6.6 AIR	
	1193053	MOUNT KIT, A/C GM 6.6 SINGLE	
	1193071	COMPRESSOR, A/C GM 6.6 10 CI	
	1169979	OIL AND FREON, AIR CONDITION	
	1200862	INSTALL, A/C DSL/SKIRT TA733	
	1186504	PANEL, ABS AIR EXHAUSE SMALL	
	1190411	TRIM RING, CONDESOR 6X40	
	1184794	CHANNEL, CODENSER ROOF MOUNT	
	BSOM254D	75K AIR TA733	
		SAME AS ABOVE EXCEPT FOR	
	1193054	MOUNT KIT, A/C GM 6.6 SINGLE	
	1193072	COMPRESSOR, A/C GM 6.6 QP21	
	BSOM258D	80K AIR TA733	
	1184794	CHANNEL, CONDENSER ROOF MOUN	
	1179520	FTG, ELBOW BRASS 1/8-27 90 D	
	1193567	BOM, AC SYSTEM TA773 80BTU D	
	1199974	BEZEL, T77 EVAPORATOR HOSE	
	1199973	BEZEL, T77 EVAPORATOR DUCT	
	1200656	ROTOVENT, 4" BLACK	
	1175964	FILTER, A/C 3/4" X 5" X 29"	
	1193043	EVAPORATOR, A/C TA77 METAL	
	1193044	CONDENSER, A/C SMC3L SKIRT M	
	1193047	WIRING KIT, A/C EC2.5 NO HEA	
	1193049	PIPING KIT, A/C CLIP-LOK SOM	
	1193052	MOUNT KIT, A/C GM 6.6 AIR	
	1193054	MOUNT KIT, A/C GM 6.6 SINGLE	
	1193072	COMPRESSOR, A/C GM 6.6 QP21	
	1193078	OIL AND FREON, AIR CONDITION	
	1200864	INSTALL, A/C DSL/SKIRT TA773	
	1186504	PANEL, ABS AIR EXHAUSE SMALL	
	1195309	TRIM RING, CONDENSOR 6" X 50	

SYSTEM 08.00 A/C
SYSTEM 08.00.03 WINTER COVER

ITEM #	PART #	DESCRIPTION	TORQUE LB-FT
	1200908	KIT, WINTER COVER SKIRT	

RAMPS

SYSTEM 09.00.01 MANUAL

ITEM #	PART #	DESCRIPTION	TORQUE LB-FT
	1164321	RAMP, MANUAL 50" BIFOLD W/3 PC ALUM	
	1182829	LATCH, ROTARY ELECTRONIC	
	1185457	TAPE, GRIT 36" X 60	
	1190830	PLATE, RAMP PAN COVER 16GA STL	
	1178661	TUB ASSY, RAMP STL 14GA	
	1200832	CONNECTOR, ROUND FLOOR LIGHT	
	1188603	SEAL, BAR STOCK .75 X .187	
	1200698	DISC, VINYL NON ADHESIVE	

SYSTEM 09.00 RAMP

SYSTEM 09.00.02 ELECTRIC

ITEM #	PART #	DESCRIPTION	TORQUE LB-FT
	1167751	RAMP, POWER LIFT 48" RAMP RICON	
	1190185	TUBE, STL 11GA 1-1/2 X 1/2	
	1188165	FUSE, 36V 40AMP ATC	
	1179530	SWITCH, IGNITION ROTARY	
	1200832	CONNECTOR, ROUND FLOOR LIGHT	
	1195355	RAMP, POWER LIFT 56" RAMP BRAUN	
	1196000	WIRE HARNESS, BRAUN RAMP	
	1198726	WIRE HARNESS, BRAUN RAMP LAY	
	1188165	FUSE, 36V 40AMP ATC	
	1179530	SWITCH, IGNITION ROTARY	
	1200832	CONNECTOR, ROUND FLOOR LIGHT	
	1200675	SWITCH, L-SERIES RAMP HEAT	
	1196677	STEP HEATER, 22" X 7.25"	
	1200454	HEAT PAD CONNECTORIZED	
	1200455	STEP HEATER MODULE	
	1183668	FUSE, 15AMP W/FUSE HOLDER BL	
	1200571	SWITCH, L-SERIES DEPLOY STOW	
	1185381	WIRE HARNESS, OUTSIDE KEY	
	1200270	SWITCH, TOGGLE WEATHERPROOF	
	1200271	BOOT, BLACK TOGGLE SWITCH	

SYSTEM 09.00.03 NO RAMP OPT

ITEM #	PART #	DESCRIPTION	TORQUE LB-FT
	1199850	PAN, STEP .25 AL 36.63 X 30.4	
	1196677	STEP HEATER, 22 X 7.25	

OPTIONS

INSTRUCTIONS

LATCHED
TO EXIT
TURN THEN PUSH KNOB TO OPEN
EMERGENCY EXIT

• Maintenance-free
HI-AMP

ARBOC MOBILITY

FOR FAST IDLE,
VEHICLE MUST BE IN PARK

FOR FAST IDLE
VEHICLE MUST BE IN PARK
AUX
ARBOC MOBILITY

FOR FAST IDLE
VEHICLE MUST BE IN PARK
JENSEN

1005
Voyager
ARBOC MOBILITY

ARBOC MOBILITY

STANDING FORWARD OF
LINE IS NOT PERMITTED
WHILE VEHICLE IS IN MOTI

VISION
STANDING FORWARD OF
WHITE LINE IS NOT PERMITTE
WHILE VEHICLE IS IN MOTION

5110

ROSCOINC.

OPEN
DO
CLOSE
OPEN
RAMP
CLOSE

OPEN
RAMP
CLOSE

SYSTEM 10.00 OPTIONS

SYSTEM 10.00.01 SAFETY

ITEM #	PART #	DESCRIPTION	TORQUE LB-FT
	1168933	TRIANGLE KIT, HIGHWAY	
	1168889	FIRST AID KIT #16 PLASTIC	
	473013	FIRE EXTINGUISHER 10LB UL/CSA	
	352256	FIRE EXTINGUISHER 5LB UL/CSA	
	1200562	WHEEL CHOCKS, YELLOW COMPOSITE	
	1200076	CLEANUP KIT, BODY FLUID	
	1174455	CUTTER, BELT EMERGENCY	
	1169787	CUTTER, WEB PREMIUM	

SYSTEM 10.00 OPTIONS

SYSTEM 10.00.02 AUX BATTERY -GAS

ITEM #	PART #	DESCRIPTION	TORQUE LB-FT
	1183713	GROMMET, RUBBER 3/8" ID 7/8"	
	1183372	BATTERY, 12V PASSENGER CAR	
	1185250	WIRE HARNESS, AUX BATTERY SO	
	491191	CONDUIT, ELEC 3/4" LT NON ME	
	415271	BREAKER, 100 AMP MANUAL RESE	
	423543	WIRE, CU 14-1 GXL RED 125C	
	1180892	CONDUIT, ELEC 1/4" POLY BLAC	
	1188726	WEATHER SEAL, RIBBED.375 X.1	
	1200791	SOLENOID, SOLID STATE	
	1200941	PLATE, HRS 11GA STL 5"X 3-1/	
	1184570	BATTERY TRAY, DUAL SLIDEOUT	
	1187140	PANEL, PASS TRANSITION FGL	
	1188639	HINGE, BATTERY BOX COVER 060	
	1188730	COVER, BATTERY BOX FGL GREY	
	1188733	DOOR, BATTERY FGL WHITE SOM	
	957963	CAM LOCK, W/KEY CHROME 1-3/8	
	1188724	STRAP, BATTERY HOLD-DOWN BLA	

SYSTEM 10.00 OPTIONS

SYSTEM 10.00.03 AUX BATTERY -DIESEL

ITEM #	PART #	DESCRIPTION	TORQUE LB-FT
	1183713	GROMMET, RUBBER 3/8" ID 7/8"	
	491191	CONDUIT, ELEC 3/4" LT NON ME	
	1188726	WEATHER SEAL, RIBBED.375 X.1	
	1184570	BATTERY TRAY, DUAL SLIDEOUT	
	1187140	PANEL, PASS TRANSITION FGL	
	1188639	HINGE, BATTERY BOX COVER 060	
	1188730	COVER, BATTERY BOX FGL GREY	
	1188733	DOOR, BATTERY FGL WHITE SOM	
	957963	CAM LOCK, W/KEY CHROME 1-3/8	
	1188724	STRAP, BATTERY HOLD-DOWN BLA	

SYSTEM 10.00 OPTIONS

SYSTEM 10.00.04 HIGH IDLE

ITEM #	PART #	DESCRIPTION	TORQUE LB-FT
	1195280	HIGH IDLE KIT, W/INTERLOK	
	1169642	LABEL, FOR FAST IDLE 4" X	

SYSTEM 10.00 OPTIONS

SYSTEM 10.00.05 DRIVER STORAGE COMPARTMENT

ITEM #	PART #	DESCRIPTION	TORQUE LB-FT
	1200794	BOX, DRIVER STORAGE FIBERGLASS	

SYSTEM 10.00 OPTIONS

SYSTEM 10.00.06 REVERSES TOW HAUL

ITEM #	PART #	DESCRIPTION	TORQUE LB-FT
	1200845	CONTROLLER, BRAKE MAX	

SYSTEM 10.00 OPTIONS

SYSTEM 10.00.07 SIGNAGE

ITEM #	PART #	DESCRIPTION	TORQUE LB-FT
	1178829	WINDOW, 46.5 X 8.5 WHITE	
	1184176	LIGHT, FLUORESCENT 36" VALANCE	
	960911	GROMMET, WIRE & CABLE 2-3/8"	
	1174299	CONSOLE UNIT, OPERATOR CONTR	
	1189486	SUPPORT ASSY, DESTINATION SI	
	1174296	SIGN, DESTINATION 14X108 FRO	
	1174297	SIGN, DESTINATION 8X96 SIDE	
	1190418	BRACKET, LIGHT SIGN SOM	

SYSTEM 10.00 OPTIONS

SYSTEM 10.00.07 PA SYSTEM

ITEM #	PART #	DESCRIPTION	TORQUE LB-FT
	1180215	PA SYSTEM KIT, W BVMHO MIRCOPHONE	
	1185375	PA SYSTEM, UNIVERSAL RADIO	

SYSTEM 10.00 OPTIONS

SYSTEM 10.00.08 PASS STOP CHIME

ITEM #	PART #	DESCRIPTION	TORQUE LB-FT
	1185252	CHIME, 12-16 VDC DAWN MIST S	
	1185253	LIGHT, 2 BULB W/RED AND BLAC	
	1185254	SWITCH, 1/2" SQUARE GREEN	
	1185258	CLAMP, CORD STOP CHIME REQUE	
	1186395	SWITCH, MICRO SNAP ACTION 15	
	1186386	RELAY, HIGH CAPACITY 12V 50A	
	1186390	RELAY, HIGH CAPACITY 12V 50A	
	1188062	WIRE HARNESS, CHIME STOP SOM	
	1185251	SIGN, STOP REQUEST 11" SOM	
	1185255	CLEAT, ROPE CHROME CABLE GUI	
	1185256	CABLE, 1/4" DIA STEEL COATED	
	1185257	TENSIONER, SPRING LOADED	

SYSTEM 10.00 OPTIONS

SYSTEM 10.00.09 AM/FM/CD STEREO

ITEM #	PART #	DESCRIPTION	TORQUE LB-FT
	1175966	INSTALLATION KIT, RADIO GM	
	1176642	ADAPTER, ANTENNA GM CHEVY	
	1183779	RADIO, DIN AM/FM/CD MED DUTY	

SYSTEM 10.00 OPTIONS

SYSTEM 10.00.10 PRE-WIRE 2WAY RADIO

ITEM #	PART #	DESCRIPTION	TORQUE LB-FT
	1185826	PLATE, STL 14GA 5-1/2 X 9	
	423541	WIRE, CU 14-1 GXL YEL 125C	
	1180892	CONDUIT, ELEC 1/4" POLY BLAC	
	1200636	DECKPLATE, SCREW-IN 6" BLACK	

SYSTEM 10.00 OPTIONS

SYSTEM 10.00.11 FARE BOX

ITEM #	PART #	DESCRIPTION	TORQUE LB-FT
	1200398	FARE BOX, M4 W/TWO V4 VAULTS	
	1200400	MOUNTING STAND, FARE BOX BLA	
	1200846	FARE BOX, TREASURY TI W/TWO KEYS	

SYSTEM 10.00 OPTIONS

SYSTEM 10.00.12 BACK UP ALARM

ITEM #	PART #	DESCRIPTION	TORQUE LB-FT
	1174997	ALARM, BACK UP 97DB SOM	
	1198962	ALARM, BACK UP SYSTEM ECHO V	

SYSTEM 10.00 OPTIONS

SYSTEM 10.00.13 BACK UP CAMERA

ITEM #	PART #	DESCRIPTION	TORQUE LB-FT
		BLACK&WHITE	
	1159951	MONITOR, BACK UP 5.6" COLOR	
	1082417	CABLE, OBSERVATION CAMERA	
	1137857	MOUNT, CELLULAR 4" W/THUMB	
	1191608	WIRE HARNESS, BACK UP CAMERA	
	801675	CAMERA, VIDEO BLACK/WHITE OB	
		COLOR	
	1159951	MONITOR, BACK UP 5.6" COLOR	
	1082417	CABLE, OBSERVATION CAMERA	
	1169834	CAMERA, BACK UP COLOR 2-11/1	
	1137857	MOUNT, CELLULAR 4" W/THUMB	
	1191608	WIRE HARNESS, BACK UP CAMERA	

SYSTEM 10.00 OPTIONS

SYSTEM 10.00.14 HYBRID

ITEM #	PART #	DESCRIPTION	TORQUE LB-FT
	1200570	WIRE HARNESS, UNDERHOOD SWIT	
	1181328	STARTER, HD 6.0 LITER GMC 45	
	1200567	SWITCH, UNDERHOOD SAFETY	
	1200578	SWITCH, HYBRID ON/OFF	
	1200569	LIGHT, LED SYSTEM FAULT	
	1200645	PANEL, HYBRID	
	1185722	WIRE HARNESS, STARTER PIGTAI	
	1188043	SWITCH, L-SERIES FAN SYMBOL	
	1189312	START/STOP SYSTEM, INTERMOTI	
	1191604	WIRE HARNESS, AIR CURTAIN SO	
	1200575	HEAT SHRINK, 1/8" X 4' 3M EP	
	1200576	HEAT SHRINK, 1/4" X 4' 3M EP	
	1200633	BRACKET, HOOD LIGHT SWITCH	
	1185666	AIR CURTAIN, OVER DOOR 36"	
	1192759	AIR CURTAIN ASSY, SOM	

SYSTEM 10.00 OPTIONS

SYSTEM 10.00.15 AUDIO/VISUAL PACKAGE

ITEM #	PART #	DESCRIPTION	TORQUE LB-FT
	1179536	MICROPHONE, HAND HELD 6' CUR	
	1179546	PATCH CORD, 25' W/REMOTE WIR	
	1185724	WIRE HARNESS, TV LAYIN SOM	
	1185372	STEREO, AM/FM/CD/DVD PLAYER	
	354941	FUSE, 36V 7.5A	
	406632	SPEAKER, W/GRILL 25 WATT 6 O	
	1185380	STANCHION, DRVS W/MOUNTING	
	1126253	TV, LCD 19" FLAT SCREEN 4:3	
	1185375	PA SYSTEM, UNIVERSAL RADIO R	

SYSTEM 10.00.16 SECURITY SYSTEMW/ TRAINING INFO

ITEM #	PART #	DESCRIPTION	TORQUE LB-FT
	1200649	REVIEWING STATION, W/POWER	
	1200639	SOFTWARE, VID-CENTER CLIENT	
	1200650	TRAINING, APC - 3 CAMERA SYS	
	1200665	BUTTON, PANIC DIGITAL 3 CAME	
	1200666	CABLE, ALARM DIGITAL 3 CAMER	
	1200667	ENCLOSURE, MDVR DIGITAL 3	
	1200668	CABLE, INTERFACE DVR OEM CAB	
	1200669	CABLE, CAMERA POWER DIGITAL	
	1200670	CONNECTOR SET, DVR MAIN CABL	
	1200671	CONNECTOR SET, INSTALLER CAM	
	1200674	CABLE, LED DISPLAY DIGITAL 3	
	1200661	CAMERA, DAY/NIGHT 4.3MM RP50	
	1200662	CAMERA, DAY/NIGHT 2.9MM RP50	
	1200663	CAMERA, DAY/NIGHT 2.9MM RP50	
	1200659	SYSTEM, DIGITAL CAMERA MDVR6	
	1200660	HARD DRIVE, 160GB DIGITAL	
	1200673	DISPLAY, 4-LED DIGITAL 3	
	1200648	INSTALLATION, TRAINING FOR	

ARBOC MOBILITY LLC

SERVICE OPERATIONS

SERVICE MANUAL

This section is intended to cover service procedures for both the bus portion of the Spirit of Mobility bus and changes to the GM chassis as made by ARBOC Mobility, LLC.

Reference to the GM Service Manual is REQUIRED for specific information on safety practices, cautions and important information such as torque specifications.

Where ARBOC Mobility, LLC has made changes to the GM chassis, torque specifications and other information supersedes the information provided by GM.

With our program of ongoing improvement, policies and procedures regarding Parts and Service presented may change or be modified. ARBOC Mobility, LLC reserves the right to make changes without notice.

We value your input. Please contact ARBOC Mobility, LLC Service Operations with any questions or suggestions at 1-866-953-5555.

SAFETY

This Service Manual covers the Spirit of Mobility bus produced by ARBOC Mobility, LLC. Before servicing this bus, you must read, understand and follow the instructions and safety warnings in this manual. Likewise, following the safety practices in the GM manual is required to safely service components as built by GM. This manual is not all-inclusive of situations that may occur from failure to follow instructions or heed warnings.

The safety information in this manual is denoted by the safety alert symbol:

DANGER

Indicates a hazardous situation, which, if not avoided, will result in death or serious injury.

WARNING

Indicates a hazardous situation, which, if not avoided, will result in death or serious injury.

WARNING

Indicates a hazardous situation, which, if not avoided, will result in minor or moderate injury.

NOTICE

Indicates a situation that could result in damage to the bus other property.

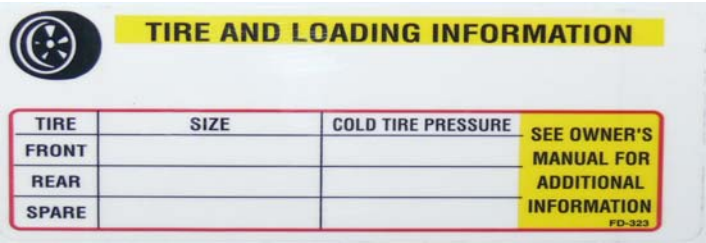
Group 00: Vehicle

00.00-01. Labeling

Tire Placard

The tire placard is affixed to the driver's doorjamb area. It identifies the following:

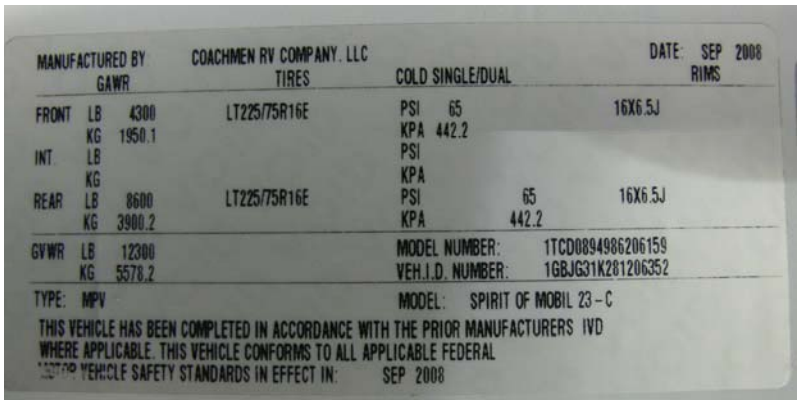
- Maximum capacity weight
- Tire sizes as originally equipped
- Cold tire inflation for front, rear and spare tires



Vehicle Certification Label

This label is affixed to the driver's doorjamb area near the tire placard. It identifies the following:

- Vehicle manufacturer and all identifying VIN and model numbers
- Gross Vehicle Weight Rating (GVWR)
- Gross Axle Weight Rating (GAWR) for both front and rear
- Cold tire inflation for front and rear tires
- Date of Manufacture



Group 01: Body

01.00-01.0 EXTERIOR

01.00-01.01 Appearance Care:

The Spirit of Mobility bus will look its best when a few basic steps are performed periodically.

- Wash the exterior monthly or more frequently if needed. Avoid harsh detergents, using only mild soap meant for automotive finishes. If power washing, do not direct spray at any angle other than one that is perpendicular to the surface. Angling the spray at high pressure and close proximity can damage or peel sealants and special paint.
- If specially painted, allow 60 days before the first application of wax.
- Once or twice a year, apply a good quality wax safe for automotive clear coat to both non-painted and specially painted bus surfaces.

Important information on sealants: ARBOC Mobility utilizes varied types of sealants. Because sealants exposed to varying elements, periodic inspection at a minimum is required on a bi-annual basis. Inspect the moldings, windows, clearance lights and all exterior attachments. Exterior cleaning is an excellent time to make these inspections. If you are unsure of the methods or type of products to make any necessary corrections, contact ARBOC at 866-953-5555 for the recommended sealant type.

WARNING!

WET SURFACES CAN CAUSE SLIPS AND FALLS. PERSONNEL SHOULD TAKE GREAT CARE IN THESE SITUATIONS. PERSONAL INJURY COULD RESULT.

01.00-01 EXTERIOR

01.00-01.10 WINDOWS

Preparation

- ❑ Inspect rough opening for burrs or other irregularities and remove
- ❑ Ensure installation surface is clean
- ❑ Protect surface of window with carpeting or fabric. Lay the window face down and apply installation tape. Recommended tape is closed cell foam
- ❑ Always ensure the tape seam is at the bottom of the window

Installation

- ❑ Ensure rough opening is .25” to .375” larger than the backside of the window
- ❑ Place window into rough opening from the outside
- ❑ Ensure window is centered both horizontally and vertically (outside locator clips are installed on most windows to assist in centering the window)
- ❑ While securing window in place, install clamp ring with seam at the top
- ❑ The recommended installation screw is a #8 x ¾” pan head, self tapping or A point
- ❑ Install one (1) screw at the top center but do not tighten. Repeat with one screw on the bottom center of the window.
- ❑ Inspect to ensure window is still centered in the rough opening (check all sides for proper centering)
- ❑ Install and tighten one screw on each side
- ❑ Install all top screws securely
- ❑ Install both sides starting from the top and work down the widow. Finish by securing the bottom screws
- ❑ Re-inspect outside gasket installation. Gasket exposure should be minimal, if at all, and should be consistent and evenly compressed

NOTICE: Do not force the window into the opening. If window is tight, stop and inspect rough opening for size or any irregularities. Next, check the backside window dimensions to ensure window is within tolerance. If window is outside of specification by more then 1/16”, please notify CLEER VISION immediately.

Trouble Shooting

Clamp ring overlaps or is "A" framed

- Check for irregularities in the rough opening
- Check if corner gussets or brackets are interfering and relieve if necessary
- Check part number on clamp ring to ensure it matches window description

Clamp ring dimples when screwed securely.

- Clamp rings vary depending on the thickness of the wall specified by the manufacturer. This includes tubing, all sidewall skins or other component materials and installation tape or other sealant. If the clamp ring depth is too thin to accommodate the wall, it will dimple when tightened too much. A replacement ring with the correct wall depth will need to be ordered.

Window gasket not sufficiently compressed.

- Likewise, a clamp ring that is too thick for the application will not provide a tight seal between the vehicle and the window. This could allow water to easily penetrate and cause other damage. In general, it is better for the clamp ring wall depth to be slightly thinner than to be too thick.

Egress handle will not latch.

- Ensure frame is not damaged or distorted. Make sure egress handle is not damaged. If damage or a tight installation is causing the problem, relieve the pressure by making the rough opening larger. In some cases, the egress handle can be bent slightly with the handle toward the glass to line up with its mounting bracket.

Sliding vents difficult to operate

- Ensure the proper clamp ring is installed. If a ring that is too thin has been used, binding and excessive pressure points may be created which can cause the slider to stick or become difficult to open and close
- Ensure the correct mounting screw is being used. A screw that is too long can cause distortion in the frame and the vent track.
- Ensure the window frame is free of dents, which can cause the vent to bind. If the frame is dented, a wood block and mallet can be used to bring the frame back in to alignment.
- Ensure the vent slide track is not damaged or deformed by running your finger or a flat screwdriver along the top and bottom track. If the track is damaged, replacement track can be purchased from CLEER VISION. Track replacement instructions can also be provided.

- Ensure both the top and bottom track is free of debris. Any foreign object lodged in the track can cause difficulty in sliding.

Water Penetration

- In general, leaking is defined as water penetrating the window between the glass and the window frame or when water accumulates at the bottom of the window and overflows the bottom of the windowsill.
- Presence of water does not necessarily indicate a problem exists. Our windows are built to manage any water that may penetrate during an average rainstorm or during normal vehicle washings. Our windows are not designed to withstanding unusually high volumes of water.
- Presence of water at the installation screws or at the bottom of the frame indicates water is likely entering between the window and the vehicle. Loosen window and slide the entire assembly up 1/8" to ¼" to ensure a seal is made at the top of the window. Inspect the bottom seal and retighten window.
- Water visible in the windowsill of an egress (escape window). A minimum amount of water is allowable as long as the weep holes can accommodate and dispose of the water. Ensure egress handles are securely closed and check the installation between the vehicle and the window.
- Water overflowing the vent on an opening window. Make sure slide track is free and clear of debris. Make sure window is completely closed and latched.

01.00-02 INTERIOR

01.00-02.01 Appearance Care:

- Cleaning the interior periodically will provide your passengers a pleasant and comfortable travel experience. Developing a routine check and cleaning of the interior for loose dirt or other items insures safe footing, as well. Be certain that the ramp area is always clean and free of debris. In addition to sweeping away dirt and debris, washing the floor should be considered, as necessary. A mild soap solution is best. The non-skid floor surface is designed for the best footing during normal use, in wet conditions. When washing the floor, soap must be thoroughly rinsed and no silicone dressings or cleaners should be used.

WARNING!

WET SURFACES CAN CAUSE SLIPS AND FALLS. PERSONNEL SHOULD TAKE GREAT CARE IN THESE SITUATIONS. UNDER NO CIRCUMSTANCES SHOULD A BUS BE PUT INTO SERVICE WITH A FLOOR STILL WET FROM WASHING. PERSONAL INJURY COULD RESULT.

Group 02: Powertrain

02.00-01.00 Driveline:

NOTE: The GM Service Manual should be used for reference when removing or replacing driveshaft.

- Install front yoke of driveshaft into transmission tailshaft, taking care not to damage seal. Allow approximately 3/4 inch of the driveshaft to show at the tailshaft seal.
- Install carrier bearing into bracket.
- Align and install rear of driveshaft into the rear end yoke.
- Torque the carrier bearing nuts to 45 ft/lbs
- Install and torque the rear u-joint caps to 20 ft/lbs

02.00-02.00 Motor Mounts:

Motor Mount Replacement

NOTE: The GM Service Manual *MUST* be used for reference when replacing motor mounts. Torque specs and safe practice steps are outlined in the GM Service Manual. ARBOC Mobility does not replace RH mount on units equipped with Diesel engine. Refer to GM Service manual for instructions.

- Remove 3 bolts from LH motor mount
- Remove 4 nuts from studs on LH motor mount
- Raise engine using method recommended in GM Service Manual to provide clearance to remove and replace mount
- After installing new mount, lower engine and replace nuts and bolts removed in previous steps
- Repeat for RH mount (Except Diesel)

Group 4: Suspension

Checking the Compressor oil

Air compressor oil – The air compressor located in the engine compartment has a remote reservoir for compressor oil. Use only AMSOIL Synthetic PC Series SAE40 or equivalent meeting the same specifications. This oil may be purchased through your ARBOC Mobility dealer, direct from AMSOIL at **1-800-956-5695**, or on the web www.amsoil.com. AMSOIL also has a dealer network that can be searched on their website for a local dealer.

It is a good idea to check the compressor oil at least once a month and when the engine oil is changed.

Diesel Engine- reservoir is on the right (passenger) side

Gasoline Engine- reservoir is on the left (driver's) side

WARNING!

A LOW FLUID LEVEL CAN DAMAGE COMPRESSOR PUMP. THE PUMP COULD OVERHEAT OR SEIZE. TOO MUCH FLUID COULD RESULT IN FLUID OVERFLOWING ONTO HOT ENGINE OR EXHAUST PARTS. FIRE CAUSING PERSONAL INJURY OR BUS DAMAGE COULD RESULT.

To check the compressor oil level, the pump must be running. The pump only runs when the system requires additional air. To assure the pump is running, kneel the bus for at least **TWO** complete cycles. A cycle is opening the passenger door allowing the bus to kneel and closing the door which causes the bus to return to its ride height. If your vehicle has a kneel-override switch, make sure this switch is turned off.

WARNING!

DO NOT ATTEMPT TO OPERATE DOORS UNTIL A CLEAR PATH FOR THE DOORS IS CONFIRMED. PERSONAL INJURY OR BUS DAMAGE COULD RESULT.

Air Compressor Oil Level Adjustment Procedure

Open the passenger door with the vehicle idling. Wait until the bus is fully kneeled. As the bus kneels you will hear air releasing from the system. When this noise stops the bus is fully kneeled. Close the passenger door. This will automatically raise the vehicle. Repeat this process at least **TWO** times and the pump will start to fill the air reservoir. You will hear a pumping noise and notice an agitation of the fluid in the air compressor oil reservoir. The correct oil level in the reservoir is determined while the air compressor is running.

Inspect the oil level in the reservoir. It should be at the fill level indicated on the reservoir label while the compressor is running.

Adjust the fluid level in the reservoir as necessary following the above procedure using AMSOIL SAE 40 Compressor oil. Do not use engine oil, transmission fluid or any other lubricant, as this will adversely affect the air system function.

Changing the Compressor oil

Parts Required:

- Compressor oil: AMSOIL product # PCK-QT, ISO 100

Tools / supplies required:

- Adjustable wrench
- Ratchet wrench with 8, 10 and 13mm sockets
- Flat blade screwdriver
- Oil suction pump NAPA Balkamp 715-1245 or equivalent
- Funnel
- Loctite brand thread sealant Part # 567 or equivalent

Oil replacement:

- Use standard shop safety practices when positioning vehicle to access underbody components.
- Bleed the air from the suspension using the manual drain release cord. Using the adjustable wrench, remove the bleeder valve on the air reservoir tank to drain any residual oil in it. *(Ref. Photo #1)*
- Disconnect the mass airflow sensor connector on air cleaner intake. Remove the air cleaner assembly by using the 8 and 10mm sockets to remove the two bolts at the radiator support and loosening the hose clamp at the flex hose with a screwdriver. *(Ref. Photo #2)*
- Remove the air compressor oil reservoir by lifting it off of the retaining bracket. Drain the reservoir. *(Ref. Photo #3)*
- Locate and remove the air compressor oil fill plug (13mm) *(Ref. Photo #4)*
- Using the oil suction pump, insert the suction line into the air compressor fill plug opening. Extract 10-12 oz of fluid into a container from the air compressor. If less than 10 oz is extracted, reposition the hose to draw the proper amount out. *(Ref. Photo #5)*

- Replenish oil in the air compressor with 10 oz Amsoil fluid using a funnel and replace fill plug. *(Ref. Photo #6)*
- Re-install oil reservoir (ensure the line between the air compressor and the reservoir is the black line)
- Fill reservoir with supplied AMSOIL to **1 inch from bottom of reservoir.**
- Remove the filter inside the oil reservoir cap (between the red insert and the black portion of the cap.)
- Re-install the air cleaner assembly & reconnect the mass airflow sensor.
- Reinstall the air tank reservoir bleeder valve using Loctite brand or equivalent sealant on the threads.
- Start engine, allowing for the suspension to cycle through its self-test mode. Verify that bubbles are forming in the compressor oil reservoir. This confirms that proper flow is occurring. If excess flow in the form of fluid shooting upward is observed, contact ARBOC Service at 1-866-953-5555.
- Check and adjust fluid level in the reservoir per the above air compressor oil level adjustment procedure.

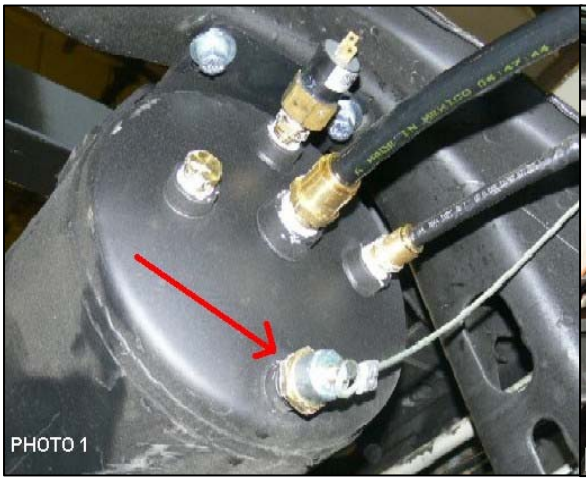


PHOTO 1

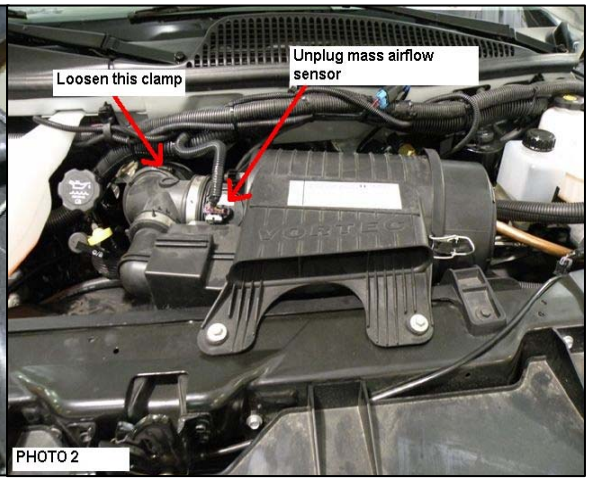


PHOTO 2

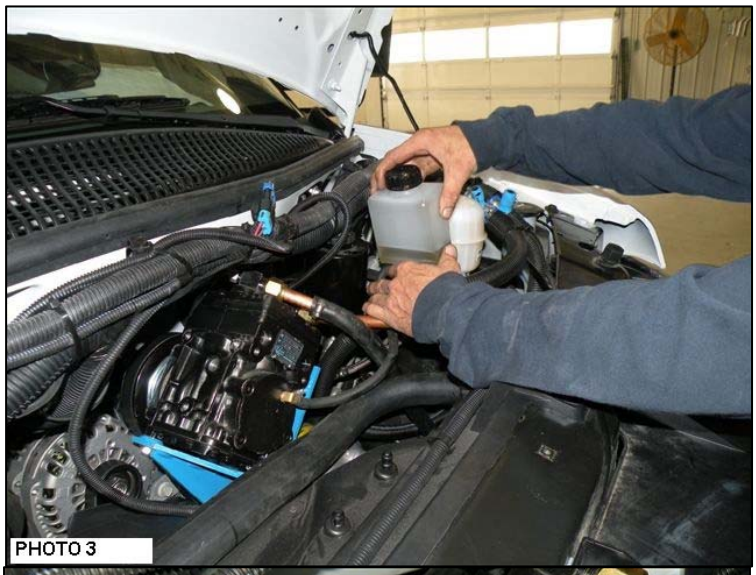


PHOTO 3

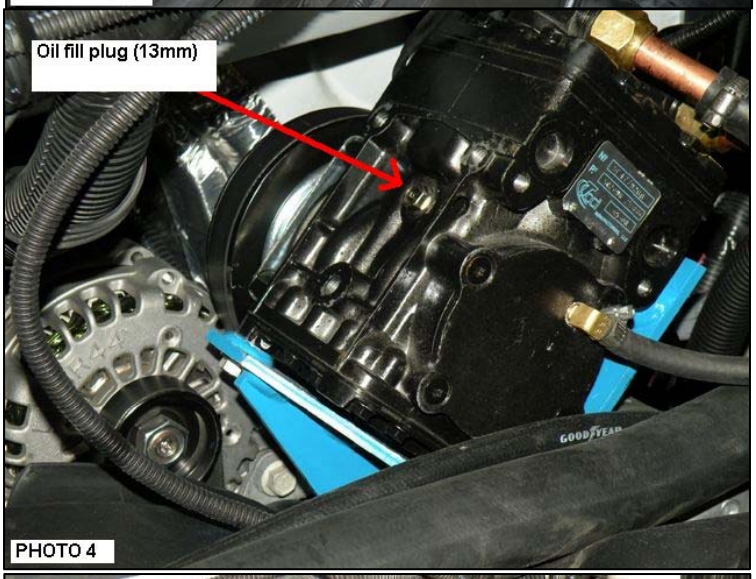


PHOTO 4

PHOTO 5

Shock Replacement

Parts Required:

- Qty 2 shocks PN# 1198729

Tools / supplies required:

- Impact wrench
- Ratchet and Sockets, 15/16 and 1 1/8
- 15/16 Wrench
- Thread Locking Compound
- Torque Wrench

Shock installation:

- Use standard shop safety practices when positioning vehicle to access underbody components.
- Remove front wheel covers and front wheels for access to shocks.
- Remove 3/4 x 4 bolt and washers from bottom of shock using 1 1/8 socket.
- Remove 9/16 x 5 1/2 bolt, washers and 9/16 locking nut from top of shock using 15/16 socket and wrench.
- Orient the new shock so that the eyelet with spacers is up. This is the top of the shock.
- Insert the top into the shock bracket and insert the 9/16 x 5 1/2 bolt with washer through bracket and top of shock. Install 9/16 washer with 9/16 lock nut. Torque bolt to 105 ft/lbs.
- Insert 3/4 x 4 bolt with 3/4 washer through the bottom of shock.
- Install 3/4 washer onto bolt. Add thread-locking compound to threads of bolt.
- Screw bolt into lower A-arm casting. Torque bolt to 105 ft/lbs.
- Repeat procedure for opposite side.
- When reinstalling wheels, torque in sequence using star pattern 1-4-7-2-5-8-3-6. Tighten to specified torque setting of 140 ft/lbs.

1
2
3
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Air Tank Draining

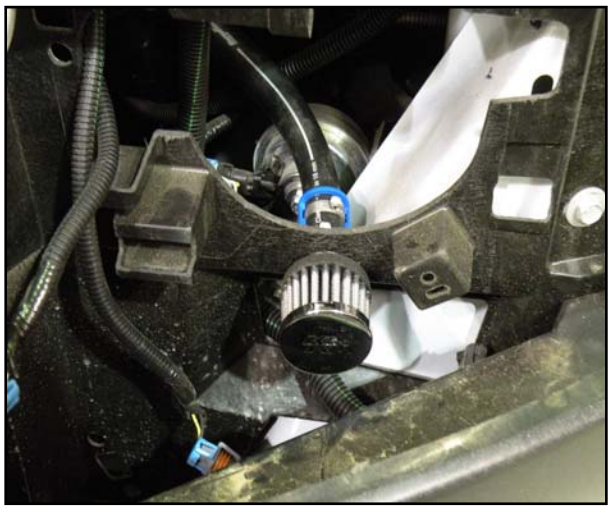
The air tank should be drained on a monthly basis.

- Check by pulling the lanyard.
- If fluid is detected, hold lanyard open until all fluid is discharged.

Air Compressor Filter Replacement

The air compressor filter should be replaced every 50,000 miles of service.

- Remove the driver's side headlight to gain access to the radiator support structure.
- Loosen the hose clamp, remove the air filter assembly and set aside.
- Insure that the intake tube stays routed through the support hole. Install the new the air filter element, reusing the hose clamp.



Air compressor intake filter

ARBOC Part # 1173318

K&N Part # 62-1340

Condenser/ Separator

The condenser / separator is designed to condense, separate and expel the majority of oil and water from the air system. These contaminants are drained automatically, each time the air system compressor activates. Located on the inside of the left frame rail just behind the driver's area, it must be inspected for proper operation every six months.

- Use standard shop safety practices when positioning vehicle to access underbody components
- Obtain a clean catch pan and line it with clean paper towels
- Force the compressor to run by using the procedure previously described to check the compressor reservoir fluid or…
- Pull the air tank lanyard and hold to fully purge air from the tank.
- Position the lined catch pan under the condenser / separator.
- Start the bus, allowing the compressor to be engaged.
- Staying clear of the suspension, observe the catch pan for contaminants. The condenser / separator should have drained its contents with a puff of air when the compressor engaged. If it did not automatically drain, follow the instructions to test the electrical circuit included in the supplemental Haldex operator's manual. If electrical circuit tests OK, the unit must be serviced.

Rear Air Bag Replacement SYSTEM 004.02 REAR SUSPENSION

Parts Required:

- Rear air Bag(s)

Tools / supplies required:

- Adjustable vehicle lift / Frame stands, Adjustable axle lift / Axle stands
- Hand tools for both English and Metric fasteners
- Die grinder with cut-off wheel
- Shop lighting for visual inspection

Rear Air Bag installation:

- Use standard shop safety practices when positioning vehicle to access underbody components
- Secure front wheels
- Adjust frame to rear axle clearance to a ride height of five inches (5”)
- Support frame and rear axle assembly to maintain this distance
- Disconnect ride height sensor link at air bag replacement location
- Locate the manual air tank drain at the driver’s side rear wheel opening and bleed air from system
- Bleed air from bag being replaced at air bag inlet
- Remove air line and air fitting
- Remove jamb nut over air inlet at top of air bag
- Remove nuts securing air bag, removing the attachment nut on the bottom last
- Collapse and remove air bag
- Remove 1/2 inch (.5”) from top of new air bag mounting stud, taking care not to cut or damage air bag inlet fitting. Cutting carefully also helps avoid the need to repair threads after the cut.

- Collapse and install new air bag using instructions above in reverse order.
- After reinstalling ride height link, air up system with shop air until suspension begins to rise
- Finish raising the suspension by starting the bus- air ride system will fully inflate air bags
- Inspect system for air leaks, remove supports and road test for proper operation

Group 10: Options

10.00-01. Stop Chime Request

To remove the stop chime buttons from the wall for servicing, a 3mm flat blade screwdriver can be used. Insert into top slot and through slot (B). The screwdriver must be bent slightly to press the tab (C) toward you while sliding stop button upward.

Appendix A:

ARBOC Mobility Preventative Maintenance Schedule Summary

This information is provided to assist in maintaining the Spirit of Mobility bus. It covers the components unique to the bus and is supplemental to the information that General Motors (GM) provides for the chassis. Normal service procedures specified in the GM Chevrolet Express Owner's manual and/ or GM Service Manual should be performed as listed.

- Air compressor oil – Check monthly and at every engine oil change
- Air compressor filter replacement – 50,000 miles
- Air tank drain – check by pulling lanyard monthly. If fluid is detected, hold lanyard open until all fluid is discharged.
- Condenser / separator- Inspect operation every six (6) months.

ARBOC Mobility Approximate Fluid Capacities

APPLICATION	Metric Capacities	English Capacities
GM 6.0 Gasoline No Rear Heat Cooling System	14.0 liters	14.8 quarts
GM 6.0 Gasoline With 1 Rear Heater Cooling System	17.8 liters	18.8 quarts
GM 6.0 Gasoline With 2 Rear Heater Cooling System	19.7 liters	20.8 quarts
GM 6.6 Diesel With No Rear Heat Cooling System	20.0 liters	21.0 quarts
GM 6.6 Diesel With 1 Rear Heater Cooling System	23.7 liters	25.0 quarts
GM 6.6 Diesel With 2 Rear Heaters Cooling System	25.6 liters	27.0 quarts